[For a discussion of the nature, scope and probable future trends (up to 1970) of Soviet economic relations with the East European satellites since World War II, and the degree of inter-satellite economic integration, see 60: Bergson, R1 Soviet Union, category 116, pp. 321-355]

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241 creased. Certain industrial plants, such as sunflower and soybean, showed a rapid rate of growth, especially in the second half of the 1930's, but they represented a very small percentage of the total acreage.

Considerable regional variations corresponded to differences in soil and terrain. Cereal cultivation was most widespread in the Old Kingdom and Bessarabia, especially in the plains of the Siret, Prut, and Danube rivers, and in Dobrogea; it was of much less importance in the Carpathian regions, Transylvania and Bucovina. In a few districts, of which the most notable was Țara Bârsei in southeastern Transylvania, the peasants carried on an intensive cultivation and had a standard of production well above the average for the country.

In the village investigations of 1938 it was discovered that cereal cultivation was predominant in all categories of holdings. It was most extensive in properties between 5 and 25 hectares, but even on dwarf holdings of under one hectare more than half the land was devoted to cereals.

With respect to the general volume of production, maize, which the peasants preferred to cultivate and which formed the major element in their diet, rose above the pre-1914 level, but wheat, which had been grown principally by large cultivators, never achieved the prewar level. Exports of both wheat and maize declined greatly below the prewar level.

PRODUCTION AND EXPORT OF CEREALS, 1909–39 [31]

(1909–13 production and export = 100)

● [439]

	Wheat		*Maize*	
	Production	*Export*	*Production*	*Export*
1909–13 (1919 boundaries)	100	100	100	100
1928–32	67.7	15.9	104.1	58.1
1933–37	70.3	19.3	101.7	42.8
1935–39	88.7	39.8	108.8	32.5

The slump in cereal production was primarily the result of low yield per hectare, since by 1924 the area under cultivation had recovered from the immediate postwar decline and surpassed the average area cultivated between 1909 and 1913.

31. U.S. Department of Agriculture, "Wartime Agricultural Surpluses of the Danube Basin," *Foreign Agriculture*, 4, No. 12 (December, 1940), 712.

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433 ing from the very extensive devastations of the war; the agrarian crisis and the world depression hurt agriculture all over the world; the agricultural protectionism of the European industrial states drove the east European nations toward industrial protection; from the middle of the 1930's the increasing menace of war led to a growing demand for heavy industries to supply armaments.

But despite all these external influences, there is still reason to believe that the relation of Rumanian agriculture to industry worked to the disadvantage of the former. Politically, of course, there is abundant evidence that industry was a far more promising source of funds than agriculture, and undoubtedly political and private interests worked to the benefit of industry. In 1927, G. D. Creangă observed, "The situation which before the war existed on the land, where a number of latifundiary owners retained the greater part of the agricultural revenue has now passed into the domain of trade and industry." [13] No doubt Rumania's need for industrialization was often used to camouflage private financial motives; in 1932 an English observer maintained that the high protectionist policy was not really designed to protect Rumania from the ravages of foreign capital but had been introduced "mainly because the Brătianu party aimed at reserving for themselves the monopoly of such profits as could be made through the exploitation of the national resources." [14]

In Rumania one can never be sure that such aims are not dominant. Nevertheless, the tension between industry and agriculture certainly involves more than the personal scramble for wealth and profits. The impulse toward industry was also intimately connected with Rumania's foreign commercial relations.

Commerce

Economic tensions on two levels have already been observed: between the peasant and the estate owner in the countryside, especially before 1914, and between agriculture and industry. Both were in some measure a consequence of Rumania's increasing involvement in the complex of world industry and commerce. It is now necessary to examine these external relations.

439 Rumanian foreign commerce was on a relatively small scale; in 1929, for example, the total value of imports and exports per capita was only one-tenth as great as that for Great Britain in the same

113

13. Quoted in Mitrany, *The Land and the Peasant in Rumania*, p. 575.

14. George Clinton Logio, *Rumania, Its History, Politics, and Economics* (Manchester, 1932), p. 126.

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year. While the principal Rumanian imports were manufactured goods—textiles, iron and steel products, and machinery—the nature of these imports does show a fairly important shift between 1920 and 1938. Increasing imports of raw materials and semifinished goods (from 2 to 20 per cent of total value of imports) and a decline in finished manufactured goods (from 88 to 74 per cent) reflect the move toward industrialization. Rumania's principal exports were agricultural products (chiefly grain), timber, and petroleum products.[15] During the interwar years petroleum became the most important export, replacing cereals, which never regained their pre-1914 position.

The significance of petroleum in Rumania commerce was, of course, very great; Rumania had a more favorable balance of trade than the other Balkan states, thanks largely to its oil shipments. In addition to its importance as an export the oil industry provided the state in normal years with nearly one-third of its revenue, not including benefits to the railways which were state-operated. But while petroleum meant a great deal to Rumania's balance of trade, its importance to the whole economy should not be overemphasized. A large part of the industry was owned by foreigners, and a considerable proportion of the proceeds from exports did not reach the country in terms of foreign exchange. Moreover, the petroleum industry, being something of a lucky windfall and detached from the rest of the Rumanian economy, did not greatly influence the pattern of exports, though it added to their total value. Except for oil, Rumania's exports resembled those of the other eastern European agrarian states, with perhaps a greater emphasis upon cereals.

What were the disadvantages of this form of commerce which should have driven Rumanian governments to strain the economy in an effort to industrialize? In recent years there has been a widespread reaction against the classical theory of the international division of labor and an increasing belief that agricultural countries are trading at a disadvantage, regardless of the doctrine of comparative costs. This reaction has taken a number of forms, ranging from a reaffirmation of Friedrich List's ideas to an advocacy of economic autarky. Without becoming involved in the theory of international trade, one may observe at least three concrete ways in which the principle of international division of labor fails to satisfy an agrarian state.

In the first place, the existing international division of labor and

15. In 1928–30 the principal exports, in percentage of total value of exports, were: grain, 29.2; livestock, 6.0; timber, 14.3; petroleum, 33.0.

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459 the distribution of industry were determined by a number of historical contingencies and are not an accurate reflection of the allocation of natural resources.[16] In the second place, historical evidence seems to indicate that the international division of labor has not, in fact, been successful in providing the more backward countries with manufactured goods. "Non-industrial countries can profit from such division of labor only to the extent they enjoy a surplus of their production that can be exported in exchange for foreign manufactures. Figures analyzed . . . clearly indicate that in the majority of non-industrial countries this surplus is not large enough to ensure them a plentiful supply of manufactures." [17] In the third place, regardless of the original reasons for a country's backwardness, the mere fact of backwardness in a competitive international system can serve to impede the country's advance toward industrialization.[18]

In addition to these general disadvantages which face undeveloped agrarian countries in world commerce, certain specific factors during the interwar years damaged Rumania's position as an exporter of agricultural products. The overseas cereal exporters, with their vast extent of land and mechanized agriculture, could produce grain more cheaply than Rumania with its peasant husbandry. The agricultural protectionism of the European industrial states had a very serious effect upon Rumania and all the eastern European states. Finally, the world agrarian depression after 1929 greatly reduced the value of Rumanian exports and created a price scissors.[19]

[113] 16. For a defense of the industrialization of agrarian states as a means of achieving a closer correspondence between the distribution of industry and the allocation of natural resources, see S. N. Prokopovicz, *L'Industrialisation des pays agricoles et la structure de l'économie mondiale après la guerre* (Neuchâtel, 1946).

17. League of Nations, *Industrialization and Foreign Trade*, p. 34.

18. K. Mandelbaum, *The Industrialisation of Backward Areas* (Oxford, 1945), p. 4.

19. Royal Institute of International Affairs, *The Balkan States: I. Economic* (Oxford University Press, 1936), p. 65:

Price per Metric Ton of Rumanian Imports and Exports
(in Swiss francs)

	Exports	*Imports*
1922–30	121.3	815.8
1931	68.5	853.9
1932	57.0	823.4
1933	49.3	768.5
1934	46.5	629.6
1935	49.4	547.0
Percentage fall between 1922–30 average and lowest point, 1931–35	62	33

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It is obvious, of course, that the real impulse toward industrialization in backward countries has been only in part economic; nationalism and the demands of state security have probably been more important in forming the actual decisions to create national industries. National interests, moreover, have a way of making relative economic differences appear absolute. Thus, if two countries are making economic progress, but one at twice the rate of the other, from the purely economic point of view both countries are gaining and the whole situation is on the positive side of the ledger. But if these two states are also involved in power politics, the relative economic disadvantage of the one state appears, and may in fact prove to be, an absolute loss. Consequently, when power relations enter into the picture, and in the Balkans that is axiomatic, economic disadvantages, which may be only relative or "temporary" in theory, appear much more menacing.

For all these reasons, in which economic and national interests are intermingled, foreign commerce or, more broadly, Rumania's economic contact with the West served as a spur to the creation of industry. Since unregulated commerce did not seem to bring this about but rather underlined Rumania's role as an agricultural nation, with all the real and imagined disadvantages that implied, industrialization was forced. While, as has been said before, there is no reason to regard this development as unnatural, that does not mean there was no dislocation. One does not know how Rumania's traditional institutions might have developed if left undisturbed. On the other hand, the superimposition of Western industrial, financial, and commercial organizations and techniques upon the undeveloped Rumanian economy did create a strain, one which is shown clearly in the financial and monetary difficulties that hounded Rumania throughout the interwar period.

Money and Finance

Rumanian finances and monetary policy have been notoriously wobbly. The cause is frequently ascribed to official graft and corruption, of which, no doubt, there was a great deal, some of it theatrically extravagant. Foreign advisers had occasion to be very critical of the use of foreign loans, state speculation in commodities, and laxness in the tax system. These shortcomings, however, were symptoms as well as causes, though they certainly exacerbated the financial troubles and contributed to a generally low standard of official ethics.

Before the First World War, Rumania's balance of payments was

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175 leadership divided, many of the party's most capable men deserted, the party's popularity declined, and an increasing number of peasant supporters were attracted to the Iron Guard.

3) An apparent recovery of the Liberals. The Liberal party had been badly hit by their defeat in 1928 and the schism between Vintilă Brătianu and Gheorghe Brătianu, occasioned by Carol's return. With Vintilă Brătianu's death in 1930 the way was cleared for a gradual reconciliation with the king. The Young Liberals (Gheorghe Brătianu) failed to make any significant headway, and under Duca the old Liberals seemed to be heading for a comeback.

4) The flowering of fascism. The meteoric rise of the Iron Guard was the most spectacular event of those years, and trailing in its wake were a number of less fiery fascist, semifascist and anti-Semitic formations of unequal importance. In the party system they served to replace the older coteries, such as Iorga's and Averescu's parties, which were fading from the scene, but in fact they heralded the collapse of parliamentary government.

5) The total impotence of the Left-wing labor movements. They had never been strong in Rumania, but during these three years they were driven from the offensive, however weak, to the defensive. Popular discontent did not, after 1933, swell the ranks of the labor movements but strengthened the Iron Guard.

The Struggle against the Depression

434 During these years the economic situation steadily deteriorated.
● 439 It was estimated that the nominal national income in lei dropped by about 45 per cent between 1929 and 1932.[8] While Rumania was able to maintain a positive balance of trade throughout the depression, the value of exports fell from 29 billion lei in 1929 to 14 billion in 1933 and 1934, even though the weight of exports increased from 7,000,000 metric tons to 8,000,000. Imports fell from 1,102,000 metric tons in 1929 to 467,000 in 1933 (450,000 in 1932). State revenues declined from 36 billion lei in 1929 to 18 billion in 1933.

439 The depression in Rumania had been initiated by the world agricultural crisis in 1929, which produced a tremendous fall in the price of agricultural products, particularly disastrous in the Balkan states because of their inability to compete with the great overseas producers. As industrial commodities fell neither so soon nor so far the resulting price scissors hurt the peasant as agricultural producer

8. Royal Institute of International Affairs, *South-Eastern Europe* (Oxford University Press, 1939), p. 127.

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and Rumania as agricultural exporter. The average price per metric ton of Rumanian exports fell in 1934 by 62 per cent of its 1922–30 average, whereas the price of imports fell by only 38 per cent in 1936. Internally agricultural prices dropped to 44 per cent of the 1929 level, industrial prices to 62 per cent.[9] The situation was further aggravated by the inauguration at this time of an agrarian protectionist policy by the European industrial states. After 1928 Germany introduced high agricultural tariffs; Italian grain and flour duties reached prohibitive levels between 1929 and 1931; France imposed heavy tariffs on cereals.

In May, 1931, the failure of the Austrian Kredit-Anstalt unleashed the financial crisis which swept across Europe and ended the flow of foreign capital to Rumania. Inevitably, the fall in grain prices, the disappearance of foreign markets for agricultural produce, and the stoppage of foreign credit had a disastrous effect upon the Rumanian economy. State finances, never on a very steady foundation, and having just been reorganized in 1929, were hit by the decline in revenues (direct taxes dropped from 8.6 billion lei in 1930 to 3.4 in 1933), and there was a budget deficit each year between 1930 and 1934.[10]

One peculiarity should be observed in the Rumanian depression. In several respects Rumania was in a better position than the other Balkan states. Because of a series of good harvests in 1929, 1930, and 1931, and because of petroleum exports, it was able to maintain a considerably better balance of trade. Moreover, because of the acquisition of a good deal of foreign capital in the loans of 1929

9. Madgearu, *Evoluția economiei romînești*, p. 60, and *Breviaire Statistique de la Roumanie* (Bucarest, 1940), p. 226:

	Wholesale agricultural prices	*Industrial prices*	*Prices of industrial products required by agriculture*
1929	100	100	100
1930	68.2	92.9	98
1931	50.8	72.0	86.6
1932	47.7	62.2	80.9
1933	44.9	62.2	81.1
1934	44.1	63.4	82.6
1935	48.4	75.2	90.2

10. As a matter of fact, a budgetary deficit in Rumania is a very relative term; many of the so-called budget surpluses of the 1920's were quite fictitious. See Ludovic Iavorschi, *L'Equilibre budgetaire en Roumanie de 1920 à 1932* (Paris, 1933). I doubt if the budget deficits can in any way be regarded as a planned attempt to counter the depression, since all the governments promised balanced budgets and the deficit appeared as the result of altogether undirected and uncontrolled expenditures through a number of channels.

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439 and 1931, Rumania was somewhat less pressed financially than the other states, and was indeed the last of the Balkan countries to introduce foreign exchange controls and to declare a partial moratorium on foreign debts.[11]

652 Nevertheless, Rumania was the slowest to show signs of recovery, an indication that something in addition to the general causes for the depression was having an effect. Such was the opinion of the French foreign advisers to the Rumanian National Bank, MM. Rist and Auboin. According to Auboin, in his report of 1935, a distinction should be drawn between the causes of disequilibrium arising from the world crisis and those proper to Rumania itself. In his opinion the first were predominant between 1929 and 1932 in the fall in prices and the disruption of international credit. But local causes became manifest, especially after 1932, despite a certain easing of international conditions. The two principal evils, in his view, were the weaknesses in the whole Rumanian credit system and the unstable budget position, both of which had afflicted Rumania since the First World War. As a financial adviser he was particularly indignant that the Rumanian government should try to enjoy all the benefits and amenities of a modern state through its expenditures but should still rely upon primitive means of organizing state finances: "It is necessary to adopt and apply not merely the methods of expenditure but also the methods of receipt of modern states." [12]

The fall in prices and the reduction of credit presented the Rumanian peasant with a serious debt load which he was in no position to discharge. The advocates of small peasant agriculture have contended that one of the principal advantages of this form of cultivation was the peasant's resistance to crises through his ability to cut expenses, reduce his relations to the market, and live on his own. It is true that debts contracted for agricultural investment were quite small in Rumania as compared with other European states.[13] Never-

11. Rumania introduced exchange controls on February 27, 1932; Hungary, Czechoslovakia, Yugoslavia, Austria, Bulgaria, and Greece had introduced them between August and October, 1931. Rumania declared a partial moratorium in January, 1933; Greece, Bulgaria, and Yugoslavia had done so in 1932.

12. Roger Auboin, *Rapport annuel sur la situation financière et monétaire de la Roumanie* (Bucarest, 1935), p. 36. Auboin was primarily concerned with Rumania's ability to honor its foreign obligations, and hence stressed the need of tightening state finances and creating a sound budget, perhaps at the expense of local requirements. Nevertheless, his, and Rist's, reports are devastating in their picture of the irresponsibility of Rumanian financial administration, its slovenliness, and tendency to make increasingly complex and meaningless regulations.

13. Comparative figures in the International Institute of Agriculture's *Farm Accountancy Statistics for 1928–29* (Rome, 1932), show very little investment and very little debt for Rumanian farms as contrasted with those of other European states. These

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652 671 farm products, aimed principally at maintaining the prices in the home market by the reduction of various charges and taxes. The Iorga government, however, at once superseded this measure by inaugurating in July, 1931, an export bounty of 10,000 lei for 10,000 kilograms of wheat and 16,000 lei for flour, the cost to be met by a bread tax. The government, however, discovered that it lacked the funds to carry out this measure and discontinued it in 1932. Moreover, it turned out to be largely for the benefit of the export houses rather than the producers and merely tempted Rumanian exporters to engage in wheat dumping. On the other hand the tax on bread, which was to pay the bount[illegible] was borne largely by the peasant consumer.[21] In 1933 and 1934 a different method was tried; the last Vaida Voevod cabinet set up a State Cereal Commission by which the government appeared on the market as a consumer to support wheat prices.

Like debt conversion, the price-supporting measures, which were taken up by the various governments in turn, were not the result of any over-all plan but were simply steps to counteract the depression. In fact, in their effect they ran against all plans for agrarian improvement. The parties, in their programs and writings, had all agreed that the future of Rumanian agriculture lay in intensive farming and in persuading the peasant to abandon extensive cereal cultivation for which his small holding was obviously ill-suited. The bounties on wheat had precisely the opposite effect and led to an even greater emphasis upon cereal production. Between 1930 and 1935 the area under wheat showed a definite, if highly irregular, tendency to rise.

439 648 The governments also undertook to obtain more favorable foreign markets. The first effort, under the National Peasants, was by means of collaboration with the other eastern European states in an agrarian bloc. Through the series of conferences in 1930 the agrarian states attempted to create a program of common action to gain preferential treatment from the industrial states for their agricultural products. Although the agrarian bloc pleaded its case at various meetings of the League and at international conferences between 1930 and 1932, it failed to open markets for agriculture. Its requests were opposed by the maritime states and overseas grain producers as contrary to free trade and the most-favored-nation principle. Madgearu, one of the most eloquent spokesmen for the bloc, declared that the agrarian states did not demand permanent preferential treat-

21. Manoilou, *La Reconstruction économique et financière de la Roumanie et les partis politiques*, p. 284.

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ment but merely assistance to recover from the depression.[22] The whole tenor of international trade policy at that time was against his recommendations, and nothing tangible was achieved. Nor did the various international efforts of 1931–33—the Tardieu Plan, the Stresa Conference, and the London Economic Conference—bring the southeastern European states any substantial benefits in relieving their foreign indebtedness, establishing common economic policy, or providing more favorable foreign markets.

With the failure of international attempts to obtain better markets for its agricultural produce, the Rumanian government was driven toward increasing restrictions and controls. Although Rumania under the Brătianus had pursued a policy of economic nationalism, and was to do so again in the latter half of the 1930's, the commercial and monetary controls imposed by the different cabinets between 1931 and 1933 did not, in their inception at least, appear to be the result of any comprehensive policy but were applied as emergency measures. Many of the steps were taken by Virgil Madgearu, who had been a bitter critic of the Liberals' policy and was later to attack the trend toward increasing protectionism; he repeatedly explained that he was being forced against his wishes into these restrictive measures.

In the spring of 1932 the government introduced foreign exchange controls to preserve the national currency in face of the deteriorating balance of payments and the threat of speculation. Import controls were imposed in December, 1932, and were, according to Madgearu, primarily designed to stimulate exports and only secondarily to restrict imports, although the association of the two was inevitable and followed from the exchange controls.[23] In the summer of 1933 Madgearu declared a moratorium on foreign debts [24] and in the autumn demanded their reduction. In defending these moves he stated that unless markets were opened to Rumanian products the government was left with no alternative but to restrict imports, control exchange, and freeze its foreign obligations. All these moves "served directly or indirectly as an instrument of agricultural protection." [25]

In the same years Rumania was making the first steps toward clear-

22. A. Bussot, "Le Bloc des états agricoles de l'Europe centrale et orientale et son programme," *Revue d'économie politique*, 47 (Paris, 1933), 153.

23. Madgearu, *op. cit.*, p. 238.

24. Under this measure the equivalents of sums due abroad were deposited in lei in the National Bank; they could not be withdrawn from the country but could be invested in Rumania. Part of Rumania's subsequent industrialization was financed by these captive funds.

25. Madgearu, *op. cit.*, p. 247.

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439 ing agreements and bilateral trade, again in the effort to find markets. 648 In 1931 a trade convention was made with Germany which reduced its duties on Rumanian maize and barley; in 1932 agreements were reached with France for the export of maize and with Germany for meat.

All these steps, however, were defensive efforts to protect agriculture against the depression. It is less easy to find much evidence of attempts to get at the roots of the agrarian question. The different cabinets passed a variety of laws, some of them transparent vote-catchers, others old favorites which each new Rumanian government seemed to pass as a matter of routine. All the cabinets announced their goal of increasing the use of agricultural machinery: the Mironescu government passed an act reducing the import duties on agricultural equipment by two-thirds, the Iorga government in 1932 and the Liberals at the beginning of 1934 granted credits for the purchase of agricultural machinery. To judge from the figures on the consumption of agricultural equipment the results were very slight, at least until 1934 with the beginning of recovery.

The only apparent effort at overcoming the disadvantages inherent in Rumania's system of strip cultivation was a law for the establishment of agricultural associations passed by the Iorga cabinet in July, [671] 1931. By this law cultivators whose separate properties formed an economic whole could combine to cultivate their land more rationally by the introduction of mechanical cultivation, use of fertilizers, selected seeds, and other technical improvements. Funds required by the associations for this purpose could be obtained through the cooperative and agricultural banks, the state to assume 6 per cent interest on the loans on the condition that the association follow a plan approved by the Ministry of Agriculture. Nothing seems to have come of this law, and a very similar semicollective state-sponsored proposal was attempted by the Antonescu regime a decade later.

In general, 1931–33 were years of steady retreat before the onslaught of the depression. In the course of this retreat a number of economic devices were developed, in Rumania as elsewhere, which were to take on increasing importance in the years to follow. To a considerable extent they had been introduced to protect agriculture, but they were soon to find pleasanter and more lucrative employment.

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665 Liberal party are indicative of the move toward a less inhibited industrial drive.

During the four years, then, between the depression and the inauguration of the Carolist dictatorship, it is possible to find inside Rumania, not to mention the external influences, three quite distinct factors making for the destruction of parliamentary government and the creation of an authoritarian regime

1) Carol's own personality and his streamlined interpretation of the old-fashioned prerogatives of a monarch;

2) The unrest and growing extremism in broad sections of the population, which was finding a mouthpiece in the Iron Guard;

3) The economic policy of neoliberalism, which not only carried overtones of a more authoritarian state but through the centralization of economic power and control increased the possibilities of creating such a state.

656 While the general atmosphere of these years of neoliberalism re-
435 sembled Manoilescu's teachings in its industrial protectionism, increasing economic nationalism, and growing corporatism, there was an important difference: contrary to Manoilescu's thesis, agricultural protection was maintained and extended. During the years 1935 to 1937 there was a complex system of minimum prices, state purchases, and export bounties for wheat. By the law of 1935 the government paid a minimum price of 35,000 lei for 10 metric tons of wheat weighing 75 kilograms per hectoliter. An export premium financed by a tax on milling, paid 10,000 lei per ten-ton truckload of wheat, and 12,000 lei per truckload of flour. This premium was dropped with the rise in agricultural prices but was reapplied in [647] 1938. A Wheat Valorization Office was formed to supervise these payments and to improve the quality of wheat. Similar steps were taken for medicinal plants, textile plants, and wool.

● 439 In 1936 Rumania signed a series of wheat export agreements with
435 Belgium, the Netherlands, Greece, Italy, Germany, the United Kingdom, and other states. Foreign trade in grains was also assisted by an extremely complicated system of taxing imports to pay for export bounties and permitting the exporter to keep a portion of the free exchange obtained by his exports. In general these measures, which were aimed at maintaining the commercial balance, had a beneficial effect in supporting the price of agricultural products and in increasing exports. Between 1934 and 1937 agricultural prices rose from 44.1 (1929 = 100) to 64.6; the value of agricultural production increased from 42 to 62 billion lei; the value of cereal exports rose

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from 2 to 10 billion lei (in quantity from one million to 2.2 million metric tons).

Two qualifications should be made however. The emphasis upon wheat exports and upon the improvement of quality was primarily for the benefit of the middle and large producer, though the maintenance of the price of grain did help agriculture as a whole. In the second place, as has been mentioned in connection with the depression, the premiums on wheat served to extend the area under wheat cultivation, in direct contradiction to the recommendations of agricultural experts, who continued to believe that "peasant agriculture should no longer limit itself, in imitation of the old system, to the culture of cereals; its success will come from a parallel development of the resources of the field and of livestock raising." [35] This contradiction, which shows the absence of any real coherence to the agrarian program of the Liberal government, had two obvious sources: wheat, for all its decline after the First World War, was important commercially and from the point of view of foreign commerce there was a strong incentive to support it. Moreover, the wheat growers were the larger farmers and were in a better position to make felt their wishes than were the small maize-producing peasants.

The government did, however, make certain efforts to increase the variety of agricultural production. The most elaborate was the creation, with the assistance of I. G. Farbenindustrie, of the "Soya" company, which was authorized to import soybeans, distribute them to cultivators, provide equipment, and purchase the entire crop for export to Germany. The area under this crop expanded rapidly, especially in Bessarabia: 1,465 hectares in 1934, 20,411 hectares in 1935, 58,037 hectares in 1936, and 102,000 hectares in 1937. The government through price guarantees and subsidies also furthered the cultivation of sugar beet, tobacco, rice, and textile plants.

These measures to diversify agriculture did not, despite all the publicity given to them, achieve very great importance. They were only a drop in the bucket compared with the vast area under peasant cereal cultivation, and their rate of expansion seemed unlikely to produce any general amelioration for a very long time. Moreover, the introduction of such industrial crops, whose main purpose—almost exclusively so in the case of soya—was for export, shows the persistent if natural effort to solve the agrarian question by a sort of legerdemain. The soybean had been an old favorite, and as early

35. G. Ionescu-Siseşti and N. Cornăţeanu, *La Réforme agraire en Roumanie et ses conséquences*, p. 79.

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German-Rumanian Economic Relations

439 This plan, however, was but part of a larger scheme which concerned not only Rumania but the Third Reich. In the course of Nazi Germany's economic penetration of southeastern Europe in the 1930's,[12] Rumania was, initially at any rate, better able than the other states to maintain an independent position, partly because it had at least one important export, petroleum, which could be sold on the world market. In the mid-1930's the Rumanian government took definite steps to limit exports to Germany. As late as 1937 Germany's share in Rumania's foreign trade was no greater than it had been in 1929.[13] The German market was, however, important as a purchaser of Rumania's agricultural products. Thus, in 1937 Germany absorbed 61.2 per cent of Rumania's maize exports, 57.4 per cent of the barley, though only 8.3 per cent of the wheat.

Germany was not initially interested in Rumania's grain exports. Indeed the policy of protecting German cereal production, which had started before the Nazis, was not dropped until rather late, and Germany did not import large quantities of bread cereals until 1937.[14] It was, however, very much interested in obtaining fodder and oil plants; it was for this purpose that in 1934 I. G. Farbenindustrie had set up the Soya Company to foster soybean production in Rumania.

After 1937 the picture changed; the economic recession hurt Balkan exports and increased Balkan dependence upon the German market. The *Anschluss* in the spring of 1938 cast Germany's political shadow over all the Balkans, and a rash of German publications announced the Reich's destiny in *Südosteuropa*. German dominance was increased with the Munich decision and the failure of the Anglo-French economic drive in southeastern Europe to achieve any important countereffect. In Rumania the shift in the international political balance, more than purely economic penetration, led to

12. For an account of Germany's trade policy which brings out some of the benefits to the Balkan states see H. W. Arndt, *The Economic Lessons of the Nineteen-Thirties* (Oxford University Press, 1944), pp. 176–206; Antonin Basch, *The Danube Basin*, pp. 165–213, emphasizes the sinister aspects of the German advance.

13. Rumania's trade with Germany between 1929 and 1938 in per cent of total values was as follows:

	1929	*1930*	*1931*	*1932*	*1933*	*1934*	*1935*	*1936*	*1937*	*1938* (*including Austria*)
Imports	24.1	25.1	29.1	23.6	18.6	15.5	23.8	36.1	28.9	36.8
Exports	27.6	18.8	11.5	12.5	10.6	16.6	16.7	17.8	19.2	26.5

(In 1937, Austria had provided 8.5 per cent of Rumania's imports and absorbed 6.8 per cent of its exports.)

14. Basch, *op. cit.*, p. 175.

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Germany's growing economic influence. By 1938 Germany and Austria absorbed 26.5 per cent of Rumania's exports, but even in the German-Rumanian agreement of December, 1938, the Rumanians were able to block German efforts to increase substantially the clearing rate of the reichsmark.

A new stage was reached, however, in the German-Rumanian agreement of March 23, 1939, which really did tie Rumania's economy to that of Germany.[15] By this treaty, which was to run for five years, very close economic collaboration was envisaged, involving German assistance in the internal development of the Rumanian economy. The principal aim of this treaty, which emphasized the complementary nature of the two economies, was to expand and diversify Rumanian agricultural production. Germany was to assist in promoting the cultivation of agricultural products of interest to its economy, especially foodstuffs, oilseeds, and textile plants. New industries were to be established for processing agricultural products. Mixed Rumanian-German companies, in which Germany was to supply the machinery, were to exploit mineral and petroleum resources. The treaty also made provision for mutual collaboration in various industries, road, rail and water transport, and public enterprises. Rumanian and German banks were to collaborate on methods of financing the activities contemplated under the plan. Finally, the agreement provided that Germany would supply armaments and munitions to Rumania.[16]

In assessing the significance of this agreement, as well as Germany's increasing economic monopoly in the Balkans, it is necessary to distinguish between the actual effects under the international circumstances and its merits as a purely economic program. In actual fact, of course, Germany's economic activities in the Balkans proved to be part of its over-all task of preparing a war economy, and it could be maintained that to overlook the military premise behind Germany's actions is to miss the essential point. Certainly Germany's primary concern was to obtain in southeastern Europe a source of vegetable and mineral raw materials to assist in creating an economy secure from blockade. At the same time, Germany appears to have regarded

15. According to Grigore Gafencu, at that time Rumanian Foreign Minister, this economic agreement was designed to appease Hitler, who had displayed an ominous irritation over Carol's assault on the Iron Guard in the autumn of 1938. See his book, *Last Days of Europe* (New Haven, Yale University Press, 1948), pp. 23–25.

16. For a discussion of this agreement from the German side, cf. Anton Reithinger, "Grossdeutschland und Südosteuropa im Lichte der Statistik," *Allgemeines Statistisches Archiv*, 29 (1939), 129–139, and German Institute for Business Research, "The German-Rumanian Trade Treaty," *Weekly Report*, Nos. 13–14 (April 6, 1939).

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manian peasant,[17] under his dictatorship the overriding concerns were mobilizing agriculture for the war, compensating for the lost territories (though part of these were regained after 1941), and maintaining production against the drain on manpower and the requisitioning of equipment and livestock for military purposes. The majority of acts were specific war measures: price controls, export controls, laws against agricultural sabotage and speculation, control of livestock, state requisitioning of cereals, crop planning, and the mobilization of agricultural labor. Most of the measures had been initiated in Carol's reign under the trade agreement with Germany and the five-year plan for agriculture, but the war intensified them and put them on a directly military footing. By necessity there was an increase in the mobilization of agricultural labor. Field commandos and labor gangs were sent about the country under the supervision of gendarmes and rural agents of the Ministry of Agriculture.

An attempt was made to compensate for the shortage of manpower and livestock by increasing agricultural equipment, largely through import from Germany. If the figures are to be trusted imports in 1941 and 1942 were quite extensive: [18]

	1941	*1942*
Tractors with ploughs	1,000	2,814
Animal-drawn ploughs	20,000	40,000
Sowing drills	4,000	1,400
Harvesters	2,000	2,230
Hoes	10,000	30,000
Harrows	4,000	9,200
Threshers	200	250

By a law of June 22, 1942, for the organization of agricultural associations, the government attempted to overcome the disadvantages of small strip farming by means reminiscent of the Iorga law of 1931. By this act a group of at least fifteen cultivators residing in the same commune could constitute an agricultural association, authorized to purchase farm machinery, seeds, fertilizers, etc., sell produce in common, purchase or lease land, and obtain credit. The association was not an independent body however. It was to be man-

17. According to an admiring German biography, Antonescu first attracted attention during the 1907 uprising when, as a young lieutenant, he succeeded, without firing a shot, in persuading a crowd of rebellious peasants to disband.

18. Brief accounts of the measures undertaken up to 1943 are given by N. D. Cornăţeanu, "International Chronicle of Agriculture: Rumania," *International Review of Agriculture, 32* (Rome, July–August, 1941), 247E–254E; and *34* (April, 1943), 156E–164E.

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subject of a number of heated disputes at international conferences, and it would be very difficult to make a reliable estimate.[24] That the drain was serious is indicated by the fact that as early as 1945 some Rumanian Communists, with more than the average amount of economic insight and less than the usual blind devotion to the Soviet Union, were in despair over the effect of the Russian withdrawals upon the country's economy and their own political position. The glaring contradiction between Russia's efforts to woo Rumania and to secure some measure of popularity for the Communist party and its rather frantic removal of goods and equipment has puzzled many observers. The explanation may simply be that the policy of this monolithic state was not consistent, or rather, that two different policies were here overlapping.

Rumania's foreign trade was greatly reduced after the war; by 1948 the value of its exports was only 50 per cent of the 1938 figure (in 1947, 21 per cent), and its imports 69 per cent (in 1947, 57 per cent).[25] The bulk of the trade was with the generally similar economies of the other eastern European states, which were being increasingly linked by a network of trade agreements.

The combination of low output, armistice obligations and war costs, and the general political uncertainty of the postarmistice months led to a fearful inflation. Rumanian currency had never been sound since the First World War and had showed a tendency toward inflation in the 1930's and the war years; between 1945 and the summer of 1947, when a drastic stabilization was achieved, prices rose to dizzying heights. The cost of living index increased from a base of 100 in 1938 to 145.0 in 1940, 413.9 in 1943, 3,678.7 in 1945, 46,140 in December, 1946, and 525,688 in July, 1947.[26]

24. At the time of the Paris Peace Conference the American delegate, Willard L. Thorp, complained that the Rumanian delegation had been of no assistance in supplying information on this point, but he estimated that the total cost to Rumania of its defeat would be about $2,000,000,000. As of 1946 he estimated that about $1,050,000,000 had already been transferred: $325,000,000 for the maintenance of occupation troops, $100,000,000 for reparations based on the 1938 price level, $175,000,000 for property restitution, and $450,000,000 for requisitions. U.S. Department of State, *Bulletin, 15*, No. 379 (October 6, 1946). In July, 1948, General Radescu, in exile in the United States, stated that since Thorp's estimate Rumania had paid an additional $735,000,000. *New York Times*, July 18, 1948. Some attempts have been made to relate these withdrawals to Rumania's national income, but both figures would by necessity be exceedingly uncertain.

25. United Nations, Department of Economic Affairs, *Economic Survey of Europe in 1948*, Table XVI.

26. Institutul Central de Statistică, *Comunicări statistice, No. 19* (Bucarest, January 31, 1948).

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Western model, but during this first period, to avoid alienating the peasants, it held its hand.

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A somewhat similar situation obtained in the question of industrial policy, though here official propaganda was much more hostile to exploiting industrialists. So long as the Tătărescu Liberals were in the government, it called for the cooperation of private capital, and the only important step taken in this first phase was the nationalization of the National Bank. As late as March, 1947, Mihail Ralea, Rumanian Minister to the United States, protested against rumors that the government was proceeding against private enterprise and maintained, either disingenuously or without information (Ralea was not a member of the Communist party), that one of the main goals of the Groza regime was to "foster private initiative," to which it granted complete freedom.[30] Nevertheless, in practice the sphere of private industrial activity was increasingly circumscribed and restricted by a number of devices: obstructive action by the workers, appeals to the national interest, or simply charges of inefficiency and sabotage.

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Perhaps the most significant economic innovation in the months after the armistice was the creation of a number of joint Soviet-Rumanian enterprises. On May 8, 1945, the Rumanian government signed an agreement with the Soviet Union providing for extensive economic collaboration. The U.S.S.R. was to assist Rumanian agriculture by supplying tractors, seed, and agricultural experts. A number of SOVROM companies were set up in the important fields of river and air transport, banking, lumbering, and oil production and refining. (A 1948 trade agreement created two new SOVROM companies for the manufacture of tractors and chemical products.) Participation in the companies was on a 50–50 basis, and the Rumanian state was to grant them special privileges and monopolies. Much of the Soviet capital was quite easily obtained from the German assets in Rumania, awarded to the U.S.S.R. in the Potsdam agreement. These concerns clearly gave the Soviet Union a controlling position at key points in the Rumanian economy.

This form of economic collaboration was reminiscent of the Rumanian-German trade agreement of 1939. The principal difference lay less perhaps in the agreements themselves than in the structure of the Soviet and German economies. Under the German-Rumanian agreement the two economies were seen as complementary, and the major function of Rumania was to provide raw materials; the Germans showed some hostility to the further development of Ru-

30. See his letter to the *New York Times*, March 12, 1947.

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manian industries, especially secondary industries. Both Russia and Rumania, however, are still industrializing economies and there seems to be little evidence, in the Rumanian case at least, of a desire to check the industrialization of the latter.[31]

The turning point in the economic policy of the immediate post-war period was the stabilization of the currency in August, 1947, which more or less liquidated the old financial structure and served as a vast economic leveler. On the fifteenth of that month, the leu was devalued (to 150 to the dollar) and the old money was ordered to be exchanged immediately at the rate of one new leu for 20,000 old lei. Peasants were limited to exchanging 5,000,000 lei; workers to 3,000,000; and other persons to 1,500,000. That is, at the official new rate, peasants could receive in exchange $1.67, workers $1.00, and others $0.50. Gold and foreign currency were entitled to full value but had to be declared under penalty of life imprisonment. This drastic measure, which came at a time of continued commodity shortages, inevitably caused widespread hardship. There were numerous reports of resistance by the peasants who felt as usual that they were being sacrificed to the benefit of the towns. The government hurled many charges of speculation and exchange violation, and part of the brutal behavior of the regime in the course of 1947 is to be associated with, if not explained by, this Draconian financial reorganization.[32]

Along with the tightening of political control the Groza government now entered a new phase of economic policy marked by the progressive nationalization of industry, collectivization of agriculture, and the beginning of economic plans. In 1947 pressure against private industry consisted primarily in assuming control over certain specific enterprises, supervising industrial activity, and making accusations of sabotage against foreign-owned concerns. At the beginning of 1948 Gheorghiu-Dej launched a general attack on private capital, which dominated industry, banking, and insurance: "Our democratic regime has been very patient with private enterprise, but private owners do not make capital investment, nor do they renew equipment. They transfer capital abroad and openly sabotage reconstruction." In January the concession of the Rumanian match monopoly to the Swedish firm (this concession had been granted at the time of the stabilization loan of 1929) was declared invalid and

31. See also below, pp. 327–329.

32. A defense of the stabilization, written by the National Bank, is published as "La Réforme monétaire en Roumanie, 15 août 1947," in *Les Archives internationales*, Doc. 554.

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TABLE XXXII. RUMANIAN FOREIGN COMMERCE: BALANCE OF TRADE

	Imports (metric tons)	Value (1,000 *lei*)	Exports (metric tons)	Value (1,000 *lei*)		Difference (1,000 *lei*)
Average 1901–05	534,622	298,923	3,034,871	360,651	+	61,728
Average 1906–10	805,574	408,939	3,904,380	501,274	+	92,335
Average 1911–15	1,002,056	526,969	3,765,234	605,320	+	78,351
1919	412,989	3,762,300	109,140	104,385	—	3,657,915
1920	304,685	6,980,290	1,467,118	3,447,848	—	3,532,442
1921	615,451	12,145,405	2,713,188	8,263,009	—	3,882,396
1922	583,668	12,325,966	4,069,963	14,039,296	+	1,713,330
1923	699,124	19,516,026	4,900,734	24,594,129	+	5,078,103
1924	825,754	26,264,582	4,833,419	28,361,044	+	2,096,462
1925	898,925	29,912,645	4,663,992	29,126,824	—	785,821
1926	934,442	37,195,415	6,117,761	38,264,805	+	1,069,390
1927	1,006,069	32,852,131	7,237,087	38,110,810	+	4,258,679
1928	952,808	31,640,956	5,886,405	27,029,728	—	4,611,228
1929	1,101,992	29,928,088	7,064,619	28,960,005	—	668,083
1930	805,283	23,044,163	9,214,754	28,522,028	+	5,477,865
1931	560,366	15,754,589	10,047,002	22,196,914	+	6,442,345
1932	448,980	12,011,225	9,056,959	16,721,593	+	4,710,268
1933	446,962	11,741,850	8,777,730	14,170,828	+	2,428,978
1934	635,868	13,208,543	8,854,096	13,655,734	+	447,191
1935	533,268	10,847,530	9,276,009	16,756,223	+	5,908,693
1936	630,443	12,637,698	10,548,913	21,703,391	+	9,065,693
1937	709,415	20,294,748	9,637,497	31,568,357	+	11,273,609
1938	820,808	18,767,830	7,409,084	21,532,580	+	2,764,750
1939	739,089	22,890,474	7,564,146	26,809,349	+	3,918,875

SOURCE: *Bréviaire statistique de la Roumanie, 1940*, p. 188.

TABLE XXXIII. RUMANIAN FOREIGN COMMERCE: IMPORTS

Value of Imports, by Per Cent

	Animals	*Food*	*Raw materials and semifinished*	*Finished goods*	*Gold and silver*
1920	—	10.4	1.9	87.6	—
1921	—	9.8	3.2	87.0	—
1922	—	11.0	4.8	84.1	—
1923	—	10.3	4.3	85.3	—
1924	—	7.7	5.4	86.9	—
1925	—	8.1	6.1	85.8	—
1926	0.1	5.7	7.9	87.0	0.2
1927	0.2	6.0	10.1	83.7	—
1928	—	6.5	9.7	83.8	—

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TABLE XXXIII. RUMANIAN FOREIGN COMMERCE: IMPORTS (*cont.*)

Value of Imports, by Per Cent

	Animals	*Food*	*Raw materials and semifinished*	*Finished goods*	*Gold and silver*
1929	—	6.9	10.6	80.5	—
1930	0.1	6.4	10.6	83.0	—
1931	—	7.2	9.9	82.7	0.2
1932	—	7.4	10.3	77.6	4.7
1933	—	6.9	12.6	80.5	—
1934	—	5.8	14.3	80.3	—
1935	—	6.6	14.1	79.5	—
1936	0.1	5.1	14.5	80.2	—
1937	—	4.4	17.5	77.5	0.6
1938	—	4.9	20.2	74.4	0.4

SOURCE: N. Georgescu Roegen, *Comerțul exterior al Romăniei în perioada 1920–1938*, quoted in Madgearu, *op. cit.*, p. 272.

TABLE XXXIV. RUMANIAN FOREIGN COMMERCE: EXPORTS

Value of Exports, by Per Cent

	Animal	*Vegetable*	*Cereals (as per cent of total vegetable)*	*Wood*	*Mineral (almost entirely petroleum)*	*Other*
1919	4.4	28.4	—	—	66.8	0.4
1920	1.3	78.9	85.2	4.6	19.6	0.2
1921	12.8	62.8	80.3	9.1	24.1	0.4
1922	15.0	63.9	59.9	29.0	20.1	0.9
1923	9.0	76.0	65.2	21.9	14.1	0.8
1924	14.7	71.4	60.6	27.4	13.0	0.9
1925	20.8	56.5	44.9	38.8	21.5	1.2
1926	14.0	59.6	61.7	26.1	25.8	0.5
1927	10.4	68.3	73.1	17.7	20.5	0.8
1928	12.9	54.9	51.5	32.8	31.1	1.1
1929	12.4	52.5	58.9	30.8	34.2	0.9
1930	11.6	50.5	69.4	21.5	37.4	0.5
1931	12.0	55.2	71.6	19.4	32.1	0.7
1932	8.3	47.0	72.9	15.7	44.1	0.6
1933	6.8	36.3	63.5	19.8	56.3	0.6
1934	9.5	36.8	48.1	29.7	53.6	0.5
1935	9.7	37.6	52.1	23.1	52.1	0.5
1936	10.6	47.3	66.6	16.4	41.6	0.4
1937	9.3	48.7	66.2	18.4	41.7	0.3
1938	10.6	44.8	54.5	25.5	44.2	0.4

SOURCE: *Anuarul statistic, 1939–40*, pp. 577, 590–598.

288 progress. The production of cocoons is in the neighbourhood of half a million pounds weight per annum. The production of boots and shoes is sufficient to supply the home market, but the quality is poor.

FOREIGN TRADE.

ROUMANIA produces in bulk for export three things: timber, grain and oil. The market for timber is the eastern Mediterranean and chiefly Egypt. Where good rail communications are lacking, the timber is moved from the forested Carpathians by water. Much is floated down the various tributaries of the Siret to Galaţi and the Black Sea. It is unfortunate that up-stream transport to western 439 markets for this bulky commodity should be so difficult, while in the Levant it has to meet the severe competition of cheap Russian timber. In the up-stream markets there has been keen competition from Jugoslavia and Poland. Cheap rail freights and abatement of export tax are means taken to combat the retrogression of the trade.

WITH REGARD to trade in grain, Roumania suffers in common with all grain-surplus producing countries. Before the War the lower Danube and Black Sea grain trade was closely linked with the demand for British coal in the Mediterranean countries, the return cargo ensuring cheap freights for a more or less regular supply. The slump in the British coal trade, the check on production brought about by the break up of large estates, a series of bad harvests, and finally a world slump in grain prices, which reduced the export price of wheat below that of the home market, all these factors have been at work in reducing the wheat trade of Roumania and producing a consistent decrease in the average value per ton. Poor transport facilities and port equipment have also acted adversely in the moving of timber and grain.

THE EXPORT of petroleum increased from 2.8 million tons in 1929 to 5.6 million tons in 1933, drilling activities having increased, especially in the Dambovița district. The port of Constanța has been considerably improved by the installation of 10-inch pipe-lines, the construction of oil reservoirs, the fitting of special hose-handling cranes and the doubling of the railway track between Cernavoda and Constanța.

647 are certainly no insuperable obstacles to the removal of what
465 constitutes a drain on the strength and probity of the country,
661 which is being visibly weakened in every sphere of administration.

The following article, which was published in the "Lupta" of Dec. 17th, 1931, is instructive as to the manner in which public functionaries behave in order to supplement the scanty salary they draw from the State and which generally does not suffice to keep them alive.

647 It is obvious that no civilized State would tolerate methods
651 which in Rumania are benevolently winked at. There is no
● 489 doubt that the evil could easily be remedied if functionaries
661 were decently paid. The increased outlay for the State which this would involve would be largely compensated by a more conscientious performance of duty by the administrative staff. For instance, it is well known that owing to the high duties in force, smuggling on a colossal scale is being carried on with the connivance of officials, with the result that the State is defrauded of millions. M. V. Madgearu, former Minister of Finances, openly admits it in his book "Rumania's New Economic Policy," published in English, on page 39 of which we come across this astounding statement: "It has been shown that while pre-war Rumania imported about 70,000 kilos of natural silk, united Rumania registered the importation of only 1,000 kilos in 1927. It is well understood that the rest has been imported through smuggling." On a rough computation this item alone would account for an annual loss of some 50 million lei to the revenue.

But, apparently, blackmail is even more lucrative than smuggling, according to the article referred to in the "Lupta":—

647 "Truly, *smuggling* constitutes a source of big revenues for
651 the State. Not bona-fide smuggling which involves the
661 introduction of goods into the country without the disbursement of duties. This latter sort of smuggling is never discovered, or if discovered is rapidly hushed up with the connivance of the ablest pillars of the Ministry. The principal sources of revenue from smuggling are derived from the hypothetical variety, when for instance an anony-

GEOGRAPHIC AND ETHNOGRAPHIC NOTES

Cetatea Alba 33,495, Focşani 32,799, Botoşani 32,007, Tighina 31,698, Bacau 31,264, Balţi 30,667, Giurgiu 30,348, Piatra-Neamt 30,211, Bazargic 29,938, Roman 28,948, Sighet 27,684 (French edition of census gives 27,646), Barlad 26,189, Ismail 26,123, Lugoş 23,674, Targovişte 22,482, Tulcea 20,104, Turda 20,057, Reşiţa 20,008.

COMMERCIAL MORALITY

One can best judge of a country by the mentality of its commercial circles, and it is not therefore amiss to enlarge on this subject prior to analyzing Rumanian finance, for it will be found that State affairs are generally conducted very much after the business methods in vogue. In fact, as we all know, legislation concerning finance and trade is often, if not always, inspired and directed by the views held by the commercial and its allied industrial and banking professions.

An outsider would have expected that in a country like Rumania, practically devoid of liquid assets, every possible safeguard would have been extended to foreign capital so as to attract it, seeing that the country's development and welfare are dependent on it. But instead, post-war Rumanian legislation has been distinctly inimical to the foreign creditors of the country, and has openly favoured and encouraged debtors to repudiate their engagements to such an extent, that finally all operations based on credit have had to be suspended. This has had a disastrous effect on Rumanian commerce, for traders are generally devoid of cash resources and depend entirely on credit for their operations. Importers of foreign goods used to obtain their supplies on a six to nine months credit basis, and were able to extend corresponding facilities to their customers, so that these transactions really corresponded to the granting of a short-term loan to Rumania which was perpetually renewed and which permitted the financing of these operations.

Several laws, amongst which that of the so-called "concordat préventif," finally superseded by the so-termed "judicial liquidation," have rendered commercial opera-

439 tions on a credit basis so hazardous that they have prac-
452 tically ceased, to the great discomfiture of Rumanian merchants, who have seen their activities completely paralysed.

426 As matters stand, a creditor is at the mercy of his debtor,
452 and if the latter refuses to honour his engagements there is
651 nothing to be done but to accept whatever compromise may
686 be offered, for a recourse to tribunals would be tantamount to a total loss not only of the amount involved, but of the supplementary expenses arising from legal disbursements and inordinately high judicial taxes which unlucky creditors will have to defray.

[439] What is singular is a tax imposed by the State on all bankruptcies to the amount of 20 per cent of the total assets declared, so that this explains, though it can hardly justify, the State's manifest indifference to the undermining of the country's commercial reputation through fraudulent bankruptcies, the frequency of which is positively alarming, for it derives corresponding advantages from this impost on bankruptcies. Instead of attempting to circumscribe this evil it would appear that the State has done much to encourage it, especially where foreigners are involved. Apparently it is actuated by the shortsighted view that the loss of the foreigner is to the benefit of the country in general, since through bankruptcies foreign capital is transferred to its own nationals. At any rate, bankruptcies have been regarded as a means of raising revenue, and the State as a privileged party has always secured its 20 per cent impost plus other legal taxes, and the debtor has usually managed to alienate a good part of his assets so as to safeguard himself in a very satisfactory manner, while the wretched creditor not only gets nothing but usually finds he is being called upon to make further disbursements on account of legal formalities involved. The *Argus* of June 15th and 16th, 1931, commenting on the law of the "Concordat préventif," qualified it as disastrous, and added: "Among the principal obstacles which prevent the development and normalization of our commerce this law stands in the front rank. . . , it has given free rein to the unscrupulous debtor, permitting him to carry out his underhand manœuvres without any risks, to sell the goods he bought with-

cent. It can easily be understood that no enterprises could possibly bear the burden of such interests, and that if foreign capital was to be excluded it would be necessary to have recourse to artificial encouragements in order to create and foster the industries it was contemplated to set up. Protection in its extremest form, therefore, was resorted to, and a tariff wall, the highest in Europe, was erected to protect the budding of these hot-house industries. In order to start a new industry the theoretical case for Protection is admittedly strong. Temporarily the new industry needs help, and eventually the country as a whole may gain from its creation, though in the meantime it has to bear the burden. The immediate effect is to increase the costs of the various articles produced locally to an extent that places them beyond the reach of a poor community such as the rural population of Rumania. The repercussion of an increase in the costs of articles required by the agrarian population naturally causes a rise in the costs of production of agricultural produce, which renders less easy its marketing in neutral markets in which the Rumanian peasant can neither enjoy nor demand the favour of a protective duty. So that eventually protection has proved an arm which has turned against him. In the case of Rumania, most of the industries which have been created proved to be clearly detrimental to the State. Certainly the textile industries, which import the totality of their raw material in the form of yarn from abroad, confer no benefit except to their proprietors. The raw material is usually allowed free admission, or pays a very light duty, while the finished article is sold at a price corresponding to that of a similar foreign product on which a duty amounting to as much as 300 per cent is occasionally imposed. Almost the whole of the difference is pocketed by the manufacturer, and the native purchaser gets no benefit whatever. On the contrary, he usually gets an inferior home-made article at almost the same price as he would pay for a foreign one generally of better quality. In this arrangement the State is deprived of a very important source of revenue since it desists from collecting the tariff dues it would otherwise have received if, instead of raw materials imported free, foreign dutiable manufactured articles had been imported.

+ That the extreme [illegible]
Rumania is

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not approved by the public may also be seen from the following excerpts culled from an article published by the same paper on May 15th, 1932: "There is a profound difference between industries which utilize local raw materials and such pseudo-industries which import from abroad semi-manufactured materials and finish them off in this country. . . . The importation of semi-manufactured goods is in the great majority of cases carried on solely to evade the Customs tariffs, and if we do not see things as they are, this is on account of private interests, for the sake of which we allow a prejudicial system to continue to function. . . ."

The *Argus*, too, several times attempted to call public attention to the nefarious results of the policy of bolstering up artificial industries, and especially in the case of the textile industry, on which it wrote as follows: "Why are clothing materials so costly? Because our protected textile industry sells its products at the same price as the goods imported from abroad. The encouragement given to the textile industry has resulted in increasing the cost of wearing apparel because industrialists are not content with a reasonable profit, and as a result a woollen suit to-day is a luxury. When our Custom tariff is to be revised the interests of industrialists alone should not be considered, but also those of the consumers."

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As one may infer from the above, this policy of industrialization was a wild scheme which materialized on a large scale, chiefly because various politicians had been directly interested in the manufacturing concerns which had been started.

The case of the paper industry may be cited as an example. All the paper mills belonged to or were controlled by friends or relatives of the Bratianus. In order to secure big profits an import duty of 50 per cent was placed on paper, creating thereby a virtual monopoly of the paper trade on behalf of the owners of the mills. As they could dictate their will to the Chamber, the high duty was maintained in spite of the protest of the Opposition. For not only the public at large suffered by the high price of such an essential commodity as paper, but political interests were equally affected. Opposition parties had to pay high prices

652 the loans concluded in 1929 and 1931, and some 930 millions are for the service of the internal debt.

The national revenue for the years 1926–1928 was computed at an average of 171 milliard lei annually, of which 110 milliards, or 64 per cent, were contributed by agriculture. The revenue *per capita* was computed at 9,709 for 1927, 11,324 for 1928, 10,400 for 1929, 7,875 for 1930, and at only 5,523 lei for 1931, the fall recorded being due to the drop in the prices of raw materials. State expenditure, as represented by the budget for 1931, absorbs approximately 25 per cent of the national revenue, but this is not the only expenditure which has to be faced. Thus for the year 1930, the last year for which complete figures are available, enabling us to form a true estimate of the total social expenditure incurred, we have:

Budgets of the State and of the Autonomous Administrations: 59,908,750,553 lei.

Budgets of the Communes, Municipalities, and Departments: 10,156,051,778 lei.

These sums represent a total charge *per capita* of 3,920 lei, while the national revenue was estimated at a *per capita* charge of 7,875 lei. This amounts to a charge of approximately 50 per cent for social expenditure, an altogether disproportionately heavy burden which largely accounts for the catastrophic decrease in the revenue, and points to the •439 gradual pauperization of the country. This inference may 652 also be drawn from the fact of the steady diminution of imports, which have declined enormously since 1927, not only in value but also in bulk, which proves that the buying power of the people has been gravely impaired, as may be seen from the following figures, the diminution in quantity indicating that the fall was in no way due to the drop in prices:

	Value	*Tons*
Imports for 1927 ...	33,428 million lei	1,008,069
,, 1930 ...	22,541 ,,	773,745
,, 1931 ...	15,858 ,,	564,338

TRADE

● 139 Pre-War Rumania was known as one of the chief grain-exporting countries. She occupied the third and occasionally the second place for maize, attaining and sometimes surpassing the one million ton figure of the United States, while for wheat she ranked fifth, coming immediately after the U.S. In spite of the fact that other countries have vastly increased their agricultural production, yet in 1931 Rumania still came second in the exports of maize and fifth in those of wheat, though after 1928 cereals no longer formed the largest group of her exports, for petroleum and its derivatives came to rank first, attaining 33.26 per cent of the value, and 40.80 per cent of the bulk of exports in 1929, as against 30.63 per cent and 24.37 per cent respectively for cereals. The following table sets out the distribution of exports during the last three years:

	1929		1930		1931	
Products	Quantity Tons.	Value in millions of Lei.	Quantity Tons.	Value in millions of Lei.	Quantity Tons.	Value in millions of Lei.
Animal	95,439	3596	121,999	3,303	119,877	2,685
Vegetal	3,910,333	15,202	5,055,770	14,404	5,126,764	12,145
Mineral	3,024.947	9,887	4,018,709	10,668	4,788 231	8,149
Combined	32,403	260	17,942	148	18,316	959

The group of vegetal products includes also timber, the exports of which amounted in 1929 to 4,679 million lei and represented 16.17 per cent of the total exports and 28.02 per cent of their bulk. Timber exports have steadily declined in value, falling to 3,094 million lei in 1930, and to 2,368 millions in 1931. The main export products of Rumania being petroleum, cereals, and timber, she is exposed to suffer more than any other nation from the Russian policy of dumping, since the principal goods exported by Russia are of an identical kind. As Russia's policy is to expand her exports to the utmost in order to secure the necessary foreign credits wherewith to buy the requisite machinery for her industrial equipment, it is to be feared that this Russian competition will be likely to cause immense prejudice to Rumania, who,

for reasons easily understood, is incapable of competing against her northern neighbour. Having to face likewise in the grain trade the formidable competition of the trans-oceanic countries which have industrialized their agricultural production, Rumania finds herself to-day in a most unenviable position, which explains why she is so desperately anxious to conclude preferential agreements with European industrial countries, so that she may have the possibility of disposing of her products at better prices than those at which similar Russian goods are being offered.

In order to market the 1931 harvest the Rumanian Government was obliged to grant a subsidy of 1,000 lei per ton of cereals exported, but after paying about one milliard lei in subsidies, it found that the system constituted too great a strain on its resources and the subsidy was suddenly suspended, many exporters not even receiving their due. The real ratio of exchange between raw materials and manufactured articles, which has lately shifted so markedly in favour of the latter, is another powerful factor which, added to her difficulties in exporting her produce, is making for the industrialization of Rumania.

As this policy of industrialization, which has been followed since the conclusion of the war, has not given the expected results, its continued pursuit and intensification can only be persisted in through State intervention, which is also growingly exerted in organizing the exports. Control of exchanges, the clearing system, quotas, and inter-state barter are all gradual stages leading to the ultimate elimination of individual initiative in commercial intercourse and its substitution by collectivist methods. From this stage to the adoption of integral communism is an easy transition, and in view of the close proximity of the Russian example no surprise should be shown if it be imitated not only by Rumania, but by other Near Eastern States, if no other way of escape out of their present difficulties be offered them. The prospect of these States adopting Bolshevism is quite within the domain of possibilities, and this can hardly constitute a very reassuring portent for our Western democracies.

The visit of Ismet Pasha to Moscow in April, 1932, for the purpose of seeing at close quarters how the Communist

administrative machinery worked, should serve as an eye-opener to the sceptic. Already, early in June, the Constantinople *Journal d'Orient* has announced that Ismet was intent on applying Russian methods to agriculture in Turkey, and that his Government had decided to create a textile industry on the Russian model and with Russian help. Subsequently the Turkish Press has announced that Russian experts had arrived to choose sites for the proposed works. For this reason it is to be deeply regretted that at the recent Grain Conferences, held in Paris and Rome, the delegates of the British Government did not adopt a more sympathetic attitude towards the views set forth not only by Rumania but also by her neighbouring countries, all of which are faced with the same difficulties. Their demand for preferential treatment with regard to their cereals may run counter to the 'most favoured nation' clause, yet there are methods by which such difficulties as may arise from such complications can eventually be circumvented, and the agreement reached between Rumania and France on May 26th, 1932, which grants the former country a total annual quota of 80,000 tons of wheat with a 40 per cent reduction in duties, is a case in point. This agreement brought into force automatically the long-talked-of preferential treaty with Germany,[1] which gives to Rumania an annual quota of some 200,000 to 250,000 tons of maize and of 400,000 to 500,000 teons of barley, with a 60 per cent reduction for the former and one of 50 per cent for the latter, and also secures for Rumania the right to export to Germany 7,000 head of cattle and 70,000 pigs per annum. Of course Rumania has had to grant corresponding advantages to Germany for certain of her industrial products, so that, taking into account that Great Britain is the largest grain-importing country, importing on an average three or four times as much as Germany, it would seem that it would be to our advantage and within our means to conclude similar arrangements. In 1931 we imported a total of 222 million bushels, of which 50 millions came from Canada, 39 from the Argentine, and 21 from the

[1] In August, 1932, a trade agreement between Italy and Rumania was signed, both countries making mutual concessions in their tariffs.

United States. At first sight it would appear that ample 000
scope exists for the provision of a market for the cereals of the Danubian countries, provided that the latter would agree to grant corresponding facilities to our manufacturers. If our delegates at the grain conferences, instead of turning down all proposals on this head emanating from these countries, had demanded a *quid pro quo*, they would have done better work. Such an arrangement would seem more advantageous to us than the policy of subsidizing wheat growing in our country since, to quote the Rt. Hon. Viscount Astor, "the world price of wheat for 1939 was 25s. per quarter, but the average cost of producing it in England was stated by many farmers to be 45s. to 55s. . . . the subsidy on wheat will cost from £3 to 5 millions . . . it would be cheaper for us to have this land derelict and to give every landlord £1 per acre, every farmer £2 per acre, and every labourer £2 per week to sit at home and smoke his pipe in idleness than to pay the quota scheme at recent prices. . . ." (*v. Nineteenth Century and After*, March, 1932.) On the whole it would certainly be more profitable if our dairy and cattle-rearing industry received cheap grain from the Danubian countries, the acquisition of which would offer our manufacturers the possibility of placing in those countries an increasing share of their manufactured products, rather than to proceed with the economically unsound policy of subsidizing grain growing in this country, and thereby intensifying the existing glut of agricultural produce in the world markets.

At any rate, if we abstain from assisting the Danubian 439 ●
countries, the force of circumstances will compel them either to seek the realization of the Mittel Europa scheme, or to adopt a distinctly Bolshevik economic policy, and it must be admitted that neither of these contingencies would be to our advantage. Besides the agreements with France and Germany, Rumania concluded in May, 1932, a temporary arrangement with Argentina concerning the export of maize, both countries agreeing to prohibit their exports if prices fell below an agreed figure, which for Argentina was fixed at 5 pesos per quintal, and for Rumania at 33 French francs per quintal. As these countries export respectively eight

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439 million and two million tons, or 75 per cent and 20 per cent of the total quantity of maize exported (for the world), it seems that there is a possibility for them to stabilize effectively its price at a reasonable figure.

Rumania still remains an essentially agricultural country in spite of the development of her petroleum industry, and as such she will continue to import from abroad the essential semi-manufactured goods for her artificially-created industry, subsisting solely by Protection, and in addition a limited quantity of better quality articles which cannot be manufactured locally, as well as machinery necessary for the equipment of her industries. Germany continues to be (as during the pre-war period) the country to which Rumania sells and from which she buys most; Czechoslovakia, Austria, and Italy being the next best purveyors as well as customers. Rumania therefore continues to be in close commercial relations with the countries of Central Europe, owing to her geographical propinquity to these States, and the facilities afforded for traffic by the Danube waterway and the main railway lines which connect Central Europe with Rumania.

The following table shows the relative importance of foreign countries in Rumania's export and import trade for 1930:

TRADE

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EXPORTS TO:—

Country	Tons.	Value in 1,000 Lei.	Percentage of total.
England	995,362	3,230,452	11.33
Austria	425,175	2,588,535	9.07
Czechoslovakia	308,552	1,985,011	6.96
Germany	1,438,698	5,363,396	18.80
Hungary	1,187,651	2,127,371	7.46
Italy	1,260,742	3,674,836	12.88
Poland	95,499	452,250	1.58
France	607,302	1,958,980	—
Greece	218,049	696,169	—
Yugoslavia	242,750	509,558	1.79
Bulgaria	142,554	363,246	—
Holland	453,576	1,356,742	—
Egypt	544,911	1,194,361	—
Belgium	284,881	905,519	—

IMPORTS FROM:—

Country	Tons.	Value in 1,000 Lei.	Percentage of total.
England	54,303	1,873,712	8.13
Austria	41,412	2,678,949	11.63
Czechoslovakia ...	138,236	3,370,354	14.63
Germany	135,911	5,776,751	25.07
Hungary	60,817	908,111	3.94
Italy	38,367	1,825,419	7.92
Poland	134,675	983,301	4.27
France	—	—	—
Greece	—	—	—
Yugoslavia	23,532	79,600	0.34
Bulgaria	—	—	—
Holland	—	—	—
Egypt	—	—	—
Belgium	—	—	—

An examination of the above figures will readily convince the reader that Rumania, which exports 90 per cent of its cereals and 75 per cent of its oil, outside the Danubian countries, can find little inducement to participate in such a scheme as that of the Danubian economic federation proposed by France. Even members of the Government paid lip-service to M. Tardieu's plan, and if there was no outspoken criticism of it this was due mainly to the desire to avoid hurting French susceptibilities. The promised financial

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439 aid was the only attractive feature of the scheme, and if this
648 plan materializes it may be taken for granted that the pecuniary assistance implied is the reason for its acceptance, and even then it is clearly indicated that such co-operation between the Danubian countries is to serve only as a prelude to a vaster project, namely that of a European Customs Union. A few figures will, however, show that this plan is not practicable. Thus Austria in 1930 imported 765,600 tons and Czechoslovakia 592,600 tons of cereals, while Hungary, Rumania, and Yugoslavia annually disposed of 3,350,000 tons on an average during the years 1928–1930, or about two million tons more than the two industrial countries of the Danube basin could absorb, for the quantity of cereals these two countries buy from other than the Danubian States is infinitesimal. They likewise import 90 per cent of the meat they require from Hungary, Poland, and Rumania, so that the available margin for an increase on this item is also very limited. Concerning petroleum, Rumania exported in 1930 a total of 3,850,000 tons, of which only 1,150,000 tons were absorbed by Czechoslovakia, Austria, Hungary, and Yugoslavia, so that she had to dispose of the rest elsewhere. Apparently there is no inducement whatever for Rumania to join this proposed Danubian Union, and it is only the bait of financial aid and the desire not to ruffle France that will induce her to adopt a benevolent attitude towards it. In fact Rumania will be adversely affected, for she can only increase her sales to the other Danubian countries to a very limited extent, while she will be obliged to extend a preferential tariff to Austrian and Czechoslovakian manufactured goods which, on the one hand, will injure her own industry, and on the other, will affect adversely the import of manufactured goods of other countries, since they will have to pay higher duties than those on the corresponding Austrian and Czechoslovakian articles. It is certain, now that the preferential treaty with Germany has come into force, that the latter country will not regard with equanimity the realization of a Danubian Customs Union, which is likely to debar her from the advantages her trade arrangement with Rumania actu-
000 ally confers on her. All these considerations go to show that

The following table shows a detailed list of imports during 1930:

INDUSTRY 439

Imports	Tons.	Percentage of total bulk.	Value in 1,000 lei.	Percentage of total value.
Livestock	296	0.04	16,439	0.07
Animal food products	10,240	1.32	221,872	0.98
Furs	120	0.02	244,046	1.08
Leather and leather goods ...	3,309	0.43	485,519	2.15
Wool, hair and goods ...	5,907	0.76	1,365,991	9.06
Natural silk and goods ...	47	0.01	86,746	0.39
Various animal substances ...	3,977	0.51	156,554	0.70
Cereals and derivatives ...	29,802	3.85	306,702	1.36
Seeds	4,133	0.54	113,976	0.51
Vegetable oils	2,331	0.30	96,980	0.43
Vegetables, flowers, etc. ...	9,713	1.26	221,084	0.98
Fruit and groceries	33,315	4.31	818,244	3.63
Beverages	240	0.03	8,422	0.04
Sugar and confectionery ...	1,248	0.16	16,975	0.07
Vegetable textiles	49,592	6.41	6,702,290	29.73
Timber and derivatives ...	13,538	1.75	146,850	0.65
Paper and derivatives ...	13.561	1.75	524,469	2.34
Rubber celluloid & derivatives	8,183	1.05	740,386	3.28
Mineral waters and salts ...	900	0.13	8,355	0.04
Glassware	2,464	0.32	161,939	0.72
Earths, stones and derivatives	83,542	10.80	473,880	2.10
Fuel (mineral) and derivatives	180,841	23.37	302,589	1.34
Iron and ironware	236,723	30.59	3,442,482	15.28
Apparatus, machines & motors	34,604	4.47	2,836,640	12.58
Vehicles	8,539	1.10	638,734	2.83
Metals and metalloids other than iron	12,473	1.61	868,706	3.86
Toys	215	0.03	40,836	0.18
Musical instruments ...	472	0.06	139,055	0.62
Optical instruments	126	0.01	101,446	0.45
Watches and clocks	153	0.02	77,480	0.34
Jewellery	73	0.01	41,410	0.18
Chemicals and medicines ...	14,673	1.89	606,471	2.69
Perfumery	47	0.01	48,744	0.21
Colours and varnishes ...	7,620	0.89	373,402	1.66
Explosives	728	0.99	105,215	0.47
Totals	7,737,745	100.00	22,540,929	100.00

OIL & MINING INDUSTRIES

In spite of the continuous increase in the output of crude oil (the output for 1931 amounting to 48 million barrels), the industry is facing a most critical situation owing to the Russian competition and low world prices, excessive transport charges, and high taxation. Notwithstanding these adverse factors, however, the output of oil is steadily increasing, Rumania now being the fourth largest producer of petroleum, as may be seen from the following table:

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565 provide their holders with a fair income, and a con-
471 siderable part of the rural population remained
423 landless. Worst of all, those peasants who did obtain land were given neither implements nor sufficient financial help which could have enabled them to make a decent living. Neither of the measures which are essential to the success of peasant proprietorship —State aid in money, machinery and technical advice; or the creation of large-scale co-operative
[641] societies and banks—were carried out. Undoubtedly the extension of the franchise in 1923 to all men of 21 and the land reforms greatly strengthened the position of the peasantry in the State. But, actually, it was widespread discontent with the working of the agrarian reform that stimulated the organization of the National Peasant Party.

423 CROPS. The great devastation of Rumania during
241 the First World War and the effects of the land reform resulted in a great reduction of the country's agricultural production during the immediate post-
• [439] war period.[1] Whereas the Old Kingdom alone in 1913 had grown 2,200,000 tons of wheat, of which 1,150,000 tons were exported, and over 3,100,000 tons of maize, of which 1,000,000 tons were exported, the production figures for Greater Rumania in 1921 were for wheat 2,140,000 tons, and for maize 2,810,000 tons. This great decrease is all the more striking in view of the fact that the amount of arable

[1] In Transylvania and the neighbouring territories, taken from Hungary, some of the great *latifundias* had been well and scientifically worked with modern agricultural machinery. There were some conscientious landowners among the Magyar nobility as well as absentee landlords who neglected their peasantry.

231 For the majority of Rumania's peasants the most
433 valuable of all animals are his sheep, of which Greater Rumania possessed about 12,000,000. Both the wool and the meat of Rumanian sheep are, however, of a lower quality than those of Great Britain or New Zealand. Sheep's milk, and the cheese made from it, supplement the monotonous diet of the peasant.

[439] Of the 3,000,000 pigs in Greater Rumania most were kept in the New Territories and a large proportion of the country's pork production was exported. Apart from the Rumanian Mangalita, English Berkshires were bred in great numbers.

241 Considered as a whole the agriculture of Greater Rumania, favoured by good climatic conditions and great soil fertility, remained undeveloped owing to the general economic conditions. The peasantry did not possess the necessary implements, buildings or animals which could have secured profitable exploitation of the soil. Financial help was difficult to obtain, and the loans that were granted were ruinous to the peasant, owing to the high rate of interest. Co-operatives were few. Some agricultural banks and associations confined to the German colonists in the Banat and in Transylvania were the only ones which succeeded. Agricultural prices were low and the peasant was often forced to sell his produce before the harvest to export trusts which dominated the market. The only assistance given by the government consisted in loans and seeds at reduced prices for the growing of certain crops, such as soya beans, for export in order to fulfil international trade agreements. During the last fifteen years Germany secured an ever greater influence upon Rumania's agriculture and took most of its exports.

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steel works of Resita and Copsa Mica, with a capital of six million pounds sterling, and many other factories also passed under German control. In the fight against Franco-British and American capital in Rumania, Germany was favoured by the fact that 50% of Rumania's imports were German, and 36% of the country's exports went to Germany (1938). By 1940 the latter had reached about 70% of the total.

This underground activity of the German minority, combined with the pro-Fascist leanings of the majority of the ruling classes, who feared to lose their privileges and were only too glad to join in the Anti-Bolshevik[1] crusade, and the corruption reigning in the army and all branches of the government apparatus, sapped the strength of the country economically, politically and morally. It had become an easy prey for the imperialism of Hitler.

[1] Especially savage measures were taken against workers' and intellectuals' progressive organizations, which were made illegal and had to go underground. Their members, if caught, were court-martialled and imprisoned.

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648 Both the political and the economic life of
241 Rumania was subject to complete German domination. The agriculture of the country had to supply the German and Rumanian armies in the field. The area of arable land was feverishly enlarged so as to provide more food. This met with considerable success. In 1941 the country produced almost as much wheat as the whole of Greater Rumania in 1935. Exports almost reached the pre-1940 level.[1] By 1943 the area under wheat had been increased to 3,000,000 hectares and that under maize to 4,000,000 hectares. Even more important is the extension of the land used for the growing of rape seeds[2] and of oil-bearing plants.[2] Rumanian agriculture served a double purpose: the provision of food for the Rumanian and German armies and the supply of Germany's war industry with valuable raw material. The introduction of the soya bean into Rumania, the delivery of thousands of iron ploughs, tractors and other agricultural machinery from Germany only served to further this aim. Exploitation of the peasantry was the immediate consequence; but, if the ploughs and machinery remain when the Germans have gone, Rumanian agriculture is bound to benefit.

433 OIL AND INDUSTRY. The output of the chemical, textile and heavy industries were increased considerably. Consumer goods, however, are scarce and very expensive. The yearly production of oil has not

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[1] Export of wheat in 1940, 379,000 tons; in 1941, 2,500 tons; export of maize in 1940, 564,000 tons; in 1941, 117,000 tons. Both have since risen.

[2] 1942: 350,000 hectares grew rape seeds and 600,000 hectares oil-bearing seeds.

241 The basis of Rumanian economy is agriculture in that some 80 per cent. of the population derive their livelihood from the land and agriculture provides a high proportion of the national income. [315] During recent years, however, the expansion of the oil industry has meant that agricultural produce has played a decreasing part in the country's [439] exports, having been superseded by oil, exports of which amounted to 43 per cent. of the total export trade in 1938, compared with 19 per cent. in 1927; while grain exports in 1938 represented 23 per cent. compared with 46 per cent. in 1927.

In spite of the importance of agriculture to national prosperity farming methods are backward and per acre crop yields are among the lowest in Europe. Attention is particularly given to growing cereals, and of these maize is the chief, [231] providing a large surplus for export (apart from the war years). Livestock density is low, which is one of the weaknesses of Rumanian agriculture, the Banat being the only district in which numbers [439] are fairly high, and farming approaches the intensive system. It must be stressed that the relatively large export surplus, which consists of wheat, maize, barley, oilseeds and pulses, livestock, oilcake, etc., is only made possible by [146] the very low nutritional level which prevails, and that if this were raised to anything like western European standards exports would be commensurately reduced.

248 Since the war more attention has been paid to 249 the growth of industrial crops such as sunflower, soya, cotton, hemp and flax and the cultivation of rubber-bearing plants has been started following the finding of the *Kok Saghys* plant left by the Russians in Bessarabia. Though some success has been achieved in increasing the areas under textile fibres, and yields have been slightly higher, the hoped for increases in soya and sunflower cultivation have not been achieved due to unfavourable weather conditions and to general wartime dislocation.

313 Rumania's forest resources, though extensive, have suffered severely from a consistent policy of over-exploitation and, while providing the basis of a fairly important industry during the period between the two wars, have been so depleted that cutting will have to be very restricted for a number of years if they are to be allowed to recover. The loss of Northern Transylvania has affected the timber industry in particular, as a high proportion of the forest resources were located there, and in that district this industry was better developed than elsewhere in the country.

IMPORTANCE OF OIL

315 Oil plays a major part, not only in Rumania's foreign trade, but also in covering her domestic fuel requirements, to a large extent replacing coal, reserves of which are small and of low quality. Since the war and the resulting pressure which Germany has exerted to obtain increased quantities of oil for her armies, (combined with the consistent drop in the rate of production between 1936 and 1941), serious attempts have been made to find alternative sources of fuel. The enormous reserves of natural gas existing in Transylvania, which were exploited only very slightly before the war, are being used increasingly as a source of fuel to supply local industries, and a

RUMANIA AS A GERMAN ALLY

648 433 To Germany Rumania has been an invaluable if expensive ally—invaluable mainly for her oil production, which accounts for one-third of total Axis supplies; expensive because, in order to exploit the country's usefulness to the full, it has been necessary to provide goods, such as oil-well equipment, agricultural machinery, machine tools, etc., all of which she can ill spare on account of the need for them both in her own country and for supply to her other satellites. To ensure smooth working of the oil-well region German troops have been established in the Ploești district. Apart fom oil German expectations have come to very little in Rumania—her demands for cereals, soya beans, sunflower-seed, etc., have not been fulfilled due to bad harvests, labour shortage and peasant hoarding, and livestock deliveries have been affected by fodder shortage and illegal slaughterings.

As to further German demands on Rumanian economy, the most outstanding were for man-power in the form of troops for the Eastern front, and the use of the country for transit of troops and war materials to the battle zones. Both these facilities have been of considerable material value to the enemy, though in order to make use of Rumanian troops Germany has had to provide the bulk of the equipment, as Rumanian industry is not adequate to supply more than the barest minimum; and even where she has the available facilities, raw materials are lacking.

[489] To exploit the country successfully from the transport angle it has been necessary to set up a control organisation to direct transit traffic, and, in addition, to supply and repair locomotives and rolling stock.

GERMAN PENETRATION

648 ●439 For a great many years, Germany has been the natural supplier of engineering and consumption goods which Rumania was unable to produce for herself, and has provided a ready market for her surplus agricultural produce. Following the coming into power of the Nazi Government, Germany succeeded in acquiring Rumanian trade to an increasing extent at the expense of other countries. With the outbreak of war, Rumania has become even more dependent on Germany as a supplier of manufactured goods in general, and iron and steel products in particular.

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In 1940 an economic agreement was signed between the two countries, by which in exchange for raw materials a ten-year plan for the development of Rumanian economy was formed. Germany agreed to the following main conditions :—

(1) The granting of extensive long-term credits.

(2) The supply of tools and machines for agricultural development.

(3) The provision of technical and financial aid for industry.

(4) The provision of extensive supplies for the development of the transport system.

(5) To put technical experts at Rumania's disposal.

(6) To make capital available for the development of industry and the banking system.

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Germany has exploited Rumania's dependence on her to the full by providing the minimum of goods, so that she owes her an ever-increasing sum in the clearing. German financial interests have gained tremendous impetus since the removal of British and American competition, together with the acquisition of the actual interests of occupied countries, such as France, Holland, and Czechoslovakia. To cite the most important example, in the oil industry German capital has increased from 0.5 per cent. of total investments in 1939 to about 38 per cent. in 1942, while in the heavy industry the Hermann Goeringwerke have achieved a footing in the main engineering firms of Resita and Malaxa, as well as in the aircraft industry and in the shipbuilding yards at Galati. The motor-vehicle assembly industry is almost entirely in the hands of the German companies, and German capital is to be found in the banks, in the timber and textile industries, in a number of transport and trading companies, and behind the attempted expansion of the mineral resources.

ITALIAN PENETRATION

There is also some considerable Italian financial penetration in Rumanian industry, though on nothing like the same scale as German; it is mainly confined to the oil, building, timber and textile industries and to various cereal export companies.

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A. PRE-WAR CONDITIONS

1. General

241 Agriculture occupies about 80 per cent. of the population of Rumania and contributes the greater part of the national income but, owing to the importance of the country's mineral-oil production, exports of agricultural products accounted for rather less than half of total exports by value, in the immediate pre-war years.

[439]

Total agricultural production, even if there were no exports, would fail seriously short of the real food needs of the country. The poorest are actually underfed, while the majority of the remainder subsist on a diet which, though adequate in quantity, is seriously deficient in quality and nutritional elements.

[146]

In her farming Rumania suffers from two interrelated difficulties: rural over-population and low food output per acre. There are 16 agricultural workers per 100 acres of farm land, compared with 6 in Denmark and 3 in Britain. Another aspect of this is the extremely small size of most of the farms—75 per cent. of them are less than 5 hectares (12 acres) in extent. Because there is not enough land to go round, most farming families have to eke out a living on holdings which under any system of general farming would be too small to provide an adequate income.

[161]

The position would be less serious if a high per-acre food output were achieved. But in fact the Rumanian output per acre is barely one-quarter of that obtained in countries like Belgium and the Netherlands. Rumania pivots her farming on wheat and maize production but, owing to the extensive methods practised, the few livestock kept, and other reasons, per acre yields are among the lowest in Europe.

It is the over-population and land shortage which are largely responsible for agriculture remaining so backward. Having insufficient land the peasant does not produce much for sale, and so cannot afford to purchase fertilisers, good quality seed or better implements. Nor can he spare many acres for fodder crops, since the bulk of his land is needed to grow the food his family eats. And as he cannot buy fodder, he cannot keep many animals. Thus, while there is some scope for agricultural improvements which would ameliorate the peasants' lot, the pre-requisite of farming progress is to find alternative occupations for the surplus population.

423 471 The system of land tenure is peasant proprietorship. This was attained under the Land Reform carried through after the first World War. The effect of this was to divide up and transfer to peasant ownership a large area of land formerly worked in big estates. This revolution in land tenure provided a solution for a long-standing social problem, but its effects on production were unfavourable. The large estates had been run by trained managers, with relatively advanced methods and equipment. Their transfer to ill-equipped, backward and uneducated peasants was followed, for a time at least, by a decline in yields, and consequently in total production and exports.

241 Little progress was made in the period between the two wars in remedying the disadvantages of uneconomic farm sizes, and in raising the low standards of farming. For lack of education the

[6-6]

241 however, be slightly deficient in grain, especially in poor years.
133

[311] The hilly land of Transylvania and the Bucovina differs markedly from the plain. There is proportionately less arable and much more meadow, grazing and forest land. The soil is poor. Methods are not as primitive as in the plain land of the Old Kingdom, but over-crowding is more serious and output per head is consequently lower. Parts of this region are slightly deficient in grain. Though [146] the level of food consumption is low, the dietary is more varied than elsewhere in the country, less maize and more meat and dairy produce being eaten.

3. Crops

311 Of the total area of pre-war Rumania, of nearly 30 million hectares (119,000 sq. miles) and twice the area of England and Wales, about 13 million hectares, or 45 per cent. was arable. Permanent meadow, pasture and grazing occupied 14 per cent., while tree and bush crops accounted for a further 2 per cent. The remaining land was non-agricultural, forest and waste land.

243 A very high proportion of the arable—over 80 per cent.—was used for grain growing, principally maize, wheat and barley. Owing to low rainfall, use of poor seed and lack of fertilisers, yields were at a low level and fluctuated widely from year to year.

[439] Out of an average grain production of 11 million tons, 6 millions went into domestic human consumption and 1½ million were exported, the remainder going to fodder, seed and waste. Grain exports have always figured largely in the country's foreign trade. During the twenty years 1920 to 1939 they only once fell below a million tons, and in some years exceeded three million tons. In value, during the decade before the war, they formed, after petroleum products, the main item in exports.

241 No other category of crops compares with grain. Sown fodder crops took barely 5 per cent. of the arable, all other crops, including potatoes, fibres, oilseeds, tobacco and sugar beet, about 8 per cent. Peas, beans and oilseeds were grown in sufficient quantities to provide surpluses for export. Germany established two companies—Solagra in 1934 and Sova A.G. in 1940—which invested large sums in promoting oilseed cultivation. The area under sunflower was raised only slightly, but that under soya rose from nil in 1933 to 103,000 ha. (254,000 acres) in 1939, but the greater part of both crops was located in Bessarabia which Rumania lost to the U.S.S.R. in 1940 (see below).

274 Production of potatoes, vegetables and sugar beet was just sufficient for domestic consumption, but the tobacco crop did not quite meet requirements. Tobacco production had fallen from 20,000 tons in the late-nineteen-twenties to 12,000 tons in the years just prior to the war.

Fruit production was undeveloped and there was little organised marketing and processing. Plums were the main crop, but three-quarters of the output was used for making brandy. Apples and other kinds of fruit, and walnuts, were produced in fair quantities, but exports were insignificant, and, owing to low quality and the lack of standardisation, there were no prospects of development.

241
654 Alongside this organisation the State ran certain technical services for agriculture, distribution of tested seeds, control of weights and measures, provision of bull and stallion services from its own stud farms. This work, however, remained less developed than in other S.E. European countries.

8. Agricultural Exports

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439 Rumania was the largest grain exporter in Europe. By value, grain accounted for over half the total of agricultural exports. Livestock products, mainly live pigs and cattle, amounted to approximately one-fifth of the total, the remainder consisting of peas, beans, oilseeds, oil and oilcake, eggs and small quantities of fruit. Quantities exported on the average in the years 1935 to 1938 are shown below :—

*Exports of Principal Agricultural Commodities**
Average 1935-38
('000 *metric tons*)

Wheat	686
Maize	543
Barley	297
Peas	21
Beans	43
Oilseeds	108
Vegetable oils ..	5
Oilcake	103
Cattle ('000 head) ..	48
Pigs ('000 head) ..	222
Eggs	10

* Pre-1939 frontiers.

241
439 It is of interest to note that, despite German hopes of a development in oilseed cultivation and exports, no increase had been achieved up to the eve of the war. German interest had succeeded in stimulating production and exports of soya beans, but there was no expansion in total oilseed exports owing to a decline in rape seed and to an increase in domestic consumption of oil.

German purchases of Rumanian agricultural exports were increasing in recent pre-war years. In 1939 the territories of Greater Germany took 25 per cent. of the wheat exports, half the feed grain and the bulk of the oilseeds. Italy also took appreciable quantities of grain.

9. Food Consumption

146
962 The Rumanian diet is perhaps the worst-balanced in south-east Europe. The outstanding feature is its high dependence on grain, which provides three-quarters of the calories and 70 per cent. of the protein. In the towns white wheat bread is eaten except by the very poor, whilst in the country wholemeal bread or maize is usual. Over large areas, particularly in the Old Kingdom, maize forms the chief food. (Taking the country as a whole maize consumption is two-thirds higher than wheat.) During the summer months, when work is very heavy, peasant families may eat as much as 3 kg. (6½ lb.) a head daily, almost always in the form of *mămăligă* (a kind of porridge).

The rest of the rural dietary consists chiefly of beans, some potatoes (especially in Transylvania), cabbage, beetroots, carrots, onions and a certain amount of cheese and milk. Consumption of all these foods is much too low by nutritional standards. Meat is rarely eaten, except at Christmas time when a pig is killed—for the rest of the year small amounts of fat salted pork are used, more or less as a flavouring. Some fish is eaten in villages near rivers. Vegetable oils—mainly sunflower—and pig fats are used for cooking; butter is rarely eaten.

CHAPTER I

722 more than half the normal, but the efforts in 1943 [249] to recover to a more average crop may have succeeded.

3. Fish

[228] The general food shortage in Rumania gave a great fillip to the fishing industry. In the 12 months April 1942 to March 1943, some 40,000 tons of fish were caught in State waters besides 13,000 tons in rented and private waters. This is almost double the largest pre-war catch. During 1942 some 6,000 tons were salted down for winter use. In order to promote and introduce better organisation into the fishing industry a German-Rumanian Company has been established, the "Marea-Neagra," which will devote special attention to developing the Black Sea fisheries.

4. Agricultural Exports

439 The pre-war level of grain exports was well 243 maintained in 1939; wheat in particular was prominent with over a million tons. The exports of 1940, however, showed an immediate reflection of territorial changes and war shortages. Total grain exports in that year barely reached a million tons compared with the pre-war average of about 1·6 million tons. The following year showed a still sharper decline, wheat reaching only 5,000 tons and maize 120,000 tons. In 1942, despite the recovery of Bessarabia, it is most unlikely that even this level was maintained.

439 Oilseed exports, despite direct German interven- 249 tion aiming at an expansion of the crop, also fell below pre-war levels. Sunflower-seed exports, the principal oilseed, fell from an average of 30,000 tons in 1935-38 to 12,000 tons in 1940 and to 5,000 tons in 1941. Exports following the 1942 crop, though probably better, were not at all commensurate with the increased production, for a serious shortage of edible oil and fat had meanwhile developed in Rumania owing to decreased supplies of pig fat and to the retention by the peasants of their seed for consumption at home, or for disposal on the Black Market.

5. Administrative Control

241 Not even the most complete and efficient system 656 of administrative control could have assured the 435 country's food supplies and exports at normal levels during these three unfavourable years, but it is clear that Rumania's food difficulties have been aggravated by mistakes in economic policy and inadequate control measures. Bureaucratic methods of handling the peasants aroused antagonism and resistance. Supplies of tested seed and other farm requisites were not made available in time. On the collection and supply side too much power was left in the hands of local prefects. But the most serious shortcoming of the official administration was the failure to establish a price control and an appropriate relationship between agricultural prices and the cost of the things farmers buy. (In the absence of effective discipline this ratio needs to be strongly in the producers' favour if production and marketing of foodstuffs is to be maintained.) Prices of consumers' goods rose rapidly, owing to shortages, while the Government pegged the prices of farm produce at comparatively low levels. Consequently, the peasants curtailed production and sought better prices by selling much of their produce through Black Market channels. The mistake was officially admitted in the autumn of 1941 when grain prices were more than doubled, but the position still remained unfavourable to

241 very largely on the acquisition of tractors and other equipment. Only Germany can provide these requisites and it is of interest that, despite the poor contribution Rumania has hitherto made to Germany's food supplies, the latter has gone some way to assist the attempted reform. Over 4,000 [433] tractors with their ploughs and a variety of other implements have been imported from Germany during the war years. Tractor numbers in Rumania have probably been more than doubled by these imports, but they still represent only the beginnings of mechanisation. They have doubtless been supplied, despite insistent demands for tractors in Germany and elsewhere, in the belief that, if properly applied, they may make some slight increase in available surpluses. Some of these may have been destined for Transnistria to make good the Russian scorching.

6. Food Conditions

511 Food conditions have varied according to local resources, and in the months following the poor crops of 1942, according to the success of local prefects and officials in securing supplementary quantities from the more favoured areas. The [162] greater part of the population is rural, and most families feed themselves with their own home-grown produce. In the earlier years of the war these were able to maintain their consumption standards, but in 1942-43 there must have been a more serious degree of shortage and privation than is usual even after short crops. In the towns there has been a severe curtailment of food supplies, mitigated in individual cases by access to the Black Market.

262 Urban shortages developed early in 1941 and 434 official rationing cards were introduced in May of 511 that year in Bucarest and brought into use soon after. Sugar and meat were the first commodities to be rationed. The original sugar ration was 375 grammes (13 oz.) per week, but since May 1943 it has been only 125 grammes (4½ oz.). Meat originally 250 grammes (9 oz.), is still (July 1943) at this level, though for a short time at the end of 1942 it was higher owing probably to the abnormal slaughterings caused by fodder shortages in 1942. Bread was first officially rationed in January 1942, but was preceded by baking regulations requiring maize admixtures in the loaf. The ration of 300

[oil]

A. INTRODUCTION

1. General

315 Both in peace and in war, the Rumanian oil industry has played an important part in the economy of the nation. Although the numbers directly employed in the industry are comparatively small—some 40,000 men—its importance to the nation can be gauged by the fact that the 4·5 million tons of oil exported in 1938 represented a value of 9·3 milliard lei, or 43 per cent. of the total export trade of 21½ milliard lei. Not only was oil the backbone of the country's foreign trade, but the industrial and general internal economy of the country is probably more dependent on oil than any other country in Europe.

War has not lessened the importance of her oil resources to Rumania—her industries and transport remain equally dependent on oil; her normal oil export trade has gone, but the Axis are greedy for every drop of oil which they can extract from Rumania, and from Rumanian wells comes almost one-third of all the liquid fuel which has to keep the wheels of Axis Europe turning. In 1940, oil exports represented 63 per cent. of the value of Rumanian exports, and whereas in 1938 30 per cent. of Germany's imports from Rumania consisted of oil, in 1940 this had risen to 56 per cent. It is undoubtedly true to say that of all the raw materials coming from outside her own borders on which German war economy is dependent, Rumanian oil is one of the most vital.

[1939]

2. Historical

The first commercial oil production in the world took place in Rumania in 1854, when 275 tons were produced. From that date until 1936, with the exception of the years of the Great War, production gradually increased to a peak figure of 8·7 million tons or 3½ per cent. of world production.

The trend of production over the last 20 years is shown on the graph on the opposite page 2

Although in 1942 the downward trend since 1936 may have been halted, or even reversed, this has been only by dint of a special effort to increase production and possibly uneconomic exploitation. In 1937 Rumanian geologists estimated that the country's oil reserves would be exhausted within ten years, and although declining production may be due in large part to the natural exhaustion of known fields, it is also due to the restrictions of the antiquated mining laws. These tended to curb normal expansion, and made exploratory drilling in non-proven areas so unattractive as not to be a commercial proposition, with the consequence that exploration, by which alone production could in the long run be maintained, was neglected. These mining laws have been superseded by a new law passed in July 1942, the main provisions of which are for the express purpose of encouraging new production by the removal of the restrictions set upon prospecting in new areas. The reserves which, under the 1937 law, the State insisted on maintaining, are now sacrificed, concessions are now granted on the basis of geological structures rather than surface areas and wasteful competition is eliminated in their exploitation. The law empowers the Government to demand the modernisation of refining and drilling equipment.

[A.L.P. p.12 ... Apr. 42]

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B. THE PETROLEUM INDUSTRY

1. Oil Production

315 There are four districts in which oil production is centred. Prahova, Dâmbovița, Buzău and Bacău, while the town of Ploești is the hub of the oil industry. In 1938 out of a total production of 6·6 million tons, the Prahova district produced 3·98 million tons—2·78 from private and 1·2 from State concessions; Dâmbovița produced 2·54 million tons, two-thirds of which came from State concessions; Buzău and Bacău produced only some 40,000 tons each. In 1941 Prahova production had dropped from 3·9 to 3·4 million tons; Dâmbovița from 2·5 to 1·7 million tons, production from Buzău and from Bacău remaining unchanged.

[332] The wells are connected by pipeline with the refineries, all but three of which are in Ploești; even at the time of peak production in 1936 Rumanian refining capacity was sufficient to take care of all the crude oil production of the country. The total refinery capacity in 1938 was over 10 million tons including nearly 2 million tons of cracking capacity, but of the total capacity probably not more than half is of modern design.

2. Consumption and Exports

315 The following table indicates internal consumption and exports in 1938, when crude production was 6·6 million tons. Exports were made to all countries in Europe including over 700,000 tons to Germany, over 500,000 tons each to the United Kingdom and to Italy, nearly 300,000 tons each to France and Czechoslovakia, and some 400,000 tons to North Africa, of which 280,000 tons to Egypt.

1938

Internal Consumption and Exports

	Internal Consumption	*Exports*	
	'000 *tons*		
Crude oil	—	136	
Motor spirit	154	1,526	
Kerosine	182	827	74% via Constanța
Gas/Diesel oil	117	755	
Fuel oil	1,001	917	20% via Giurgiu
Special fuel oil*	131	—	
Lubricants	24	41	
Wax, asphalt, etc.	64	30	

* Mainly for central heating.

315 Nearly 70 per cent. of internal consumption was therefore represented by fuel and special fuel oil, and this figure shows the extent to which industrial and domestic plant have been built up on the basis of burning fuel oil, and the dependence of the country on adequate supplies of fuel oil for its essential services. In this dependence will be seen some explanation of the fact that Rumania is one of the few countries in the world whose internal consumption of oil for non-military purposes has not declined in war-time.

The main consumers of fuel oil and special fuel oil were as follows:—

	Tons
Railways	195,000
Shipping Services	90,000
Industries	419,000
Power Stations	160,000
Central Heating	148,000
Agriculture and Peasant Mills	19,000

[18C]

CHAPTER II

3. Transport

315 For the transport of oil both for internal consumption and for export, Rumania relied largely upon railways, and except between the wells and the refineries, only a relatively small proportion was transported by pipeline. The three main pipelines were State-owned and were laid mainly for the transport of oil for export: one for white products from Ploești to Constanța with a capacity of 810,000 tons per annum, and two lines for crude and heavy residue from Ploești to Giurgiu with a combined capacity of 300,000 tons per annum.

The total quantity of oil through three lines in 1938 was 800,000 tons; 13 per cent. of the exports from Constanța and 17 per cent. of those from Giurgiu were handled in this way as well as the internal transport of some 184,000 tons of crude oil. The Rumanian fleet of 8,000 tank cars was ample to handle all the oil transported by rail. [497]

The main channel for exports was Constanța on the Black Sea, through which 3·3 million tons were exported in 1938, as compared with only 935,000 tons through Giurgiu for transport up the Danube.

C. THE INDUSTRY IN WAR-TIME

1. General

315 722 The war has completely altered the orientation of the Rumanian oil industry: normal export trade routes through Constanța and the Mediterranean were cut and exports to most countries in Continental Europe came under German control as soon as the Germans were astride the Danube at Belgrade, and the main railways through Poland and Yugoslavia. Not only were normal export channels disrupted, but the Rumanian oil industry lost the services of all its foreign technical experts, and could no longer get from the United States supplies of drilling and refinery equipment on which it had very largely relied.

The inevitable result of all this was that in spite of the urgent need for increased production and all German efforts to obtain this, the downward production trend was not halted in 1941, and only 5,483 million tons were produced. That year was, however, one of abnormal difficulties owing to the necessity for reorganising the industry on a war-time basis, rapidly rising prices of almost everything but oil, shortage of man-power owing to Rumanian mobilisation, the difficulty of getting equipment, and above all an abnormally severe winter which hampered transport so severely that production had to be restricted for lack of storage. By dint of continuous German pressure and increased control of the industry, production in 1942 probably reached 5·6 million tons.

Internal consumption has, however, not decreased and is thought to be running at a rate of 2-million tons a year, which leaves between 3 and 3½ million tons available for the Axis and neutral countries in Europe. Italy gets approximately one million tons a year, Germany two million tons, and small quantities go to Switzerland, Sweden and Turkey.

315 439 Except during the winter months when navigation on the Danube is suspended, the majority of exports to Italy go by pipeline to Giurgiu and thence by barge to river ports in Yugoslavia or Hungary for transhipment to Italy by rail-tank car. One of the results of the reorientation of Rumania's oil export trade has been the greatly increased use made of the river port of Giurgiu.

[14a]

TABLE I

APPROXIMATE STRENGTH OF OIL GROUPS BY NATIONALITIES IN 1930

	Capital		Fixed Assets		Production*	
	In millions of lei	Per cent.	In millions of lei	Per cent.	Thousands of tons	Per cent.
Anglo-French-Belgian .. 8 large companies 14 small companies	9,893	64·72	30,089	64·83	4,253	67·09
American .. .. 1 large company 1 small company	1,013	12·51	5,513	11·88	900	14·20
Italian .. .. .. 1 large company 1 small company	380	2·53	1,259	2·71	335	6·29
German	77	0·50	525	1·13	51	0·80
Rumanian .. .. 2 large companies 33 small companies	3,027	19·74	9,024	19·44	800	12·62
Total	15,280		46,410		6,339	

* The production figures shown in this Table appear to be those for 1930

CHAPTER II

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TABLE II

APPROXIMATE STRENGTH OF OIL GROUPS BY NATIONALITIES IN 1942

	Capital		Fixed Assets		Production*	
	In millions of lei	Per cent	In millions of lei	Per cent	Thousands of tons	Per cent
German group owns, controls or directs	3.431	22·45	11.297	24·28	1.487	23·46
American	5.795	37·91	13.288	28·63	2.361	37·24
Vacuum Oil	6	(0·03)	82	0·19	—	—
British	912	5·97	3.835	8·26	640	10·10
United ..						
Anglo-French	2.387	15·61	8.107	17·47	740	11·67
Steaua Romana						
Anglo-French-Belgian ..	899	4·38	2.060	5·46	145	2·29
14 small companies						
Italian	386	2·53	1.259	2·71	335	5·28
Rumanian	1,700	11·12	5.967	12·86	631	9·96
Total	15,186		46.419		6.339	

* The production figures shown in this Table would appear to be those for 1939

[16a]

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TABLE III

PRINCIPAL RUMANIAN OIL COMPANIES, 1942

Name	Founded	Capital (mill. lei)	1940 Crude Production (tons)	Controlling interest
Astra Română	1910	2,542	1,173,256	Royal Dutch Shell
Concordia	1907	2,030	793,626	Kontinental Oel A.G.
Româno-Americana	1904	1,500	727,345	Standard Oil of New Jersey
Steaua Română	1895	1,500	640,920	French, Rumanian, British
Unirea	1921	720	652,000	General Mining Corporation
Columbia	1905	380	585,193	Kontinental Oel A.G.
Creditul Minier	1919	605	292,166	Rumanian
Prahova	1920	330	271,947	A.G.I.P. (Azienda Generale Italiana Petroli)
I.R.D.P. (Industria Romana de Petrol)	1920	320	117,925	Sudostchemie Hand A.G. German
Petrolul Românesc	1920	120	83,377	Creditul Minier, Rumanian
Starnaphtha	1926	60	55,530	French
Foraj Lemoine	1923	44	42,658	Rumanian, Franco-Belgian
Redeventa	1918	300	28,474	Rumanian
Foraky Românească	1922	50	25,958	German
Sondrum	1921	100	17,982	French
Petrol Block	1918	470	—	German (refining company)

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TABLE IV

PRINCIPAL RUMANIAN REFINERIES

Name	Location	Annual Capacity (tons)	Cracking Capacity (tons)
Astra Română	Ploești	1,750,000	600,000
Steaua Română	Câmpina	1,500,000	350,000
Goncordia	Ploești	1,300,000	200,000
Română-Americano	Ploești	1,100,000	350,000
Phoenix Unirea Orion	Ploești	800,000	150,000
Standard Petrol Block	Ploești	550,000	150,000
Creditul Minier	Brazi	530,000	150,000
Colombia	Ploești	485,000	260,000
Unirea Speranța	Ploești	400,000	—
Redeventa	Ploești	230,000	—
Prahova	Bucarest	200,000	—
Lumina (Petrolmina)	Ploești	140,000	—
Noris	Ploești	50,000	—

I. COAL

A. Consumption, Imports, Deposits

372 375 Coal has not played such a large part in Rumanian economy as it has in that of most European countries because of the abundant mineral oil and timber resources which have been used extensively for fuel, both in industry and for household purposes. The following table shows the percentage consumption of the different types of fuel (average 1937-39):—

	%
Firewood	28·7
Oil and oil products	26·1
Coal	25·9
Methane and other gases	17·2
Water power	2·1

The railways accounted for 60 per cent. of total coal consumption which was of the order of 2 million tons, the balance being divided between industry, household consumption and bunkers.

135 Before the war coal reserves, which are predominantly brown coal, were estimated at 2·7 milliard tons brown coal (including lignite), and 48 million tons of hard coal. The more important deposits are located in southern and western Transylvania, while a few of lesser importance are in the northern area which was ceded to Hungary.

316 439 In spite of the limited industrial development of the country and extensive use of oil, coal production is hardly sufficient for current needs, and it has been necessary to import both coal and coke to fill the deficiency.

Pre-war coal imports in metric tons were as follows :—

	Metric Tons
1935	21,000
1936	23,000
1937	28,000

316 It is difficult to estimate coal imports since the war, but available evidence suggests that they are 439 in the neighbourhood of 75,000 tons annually or three times as high as the pre-war figure. Owing to the exigencies of war, railway traffic has increased enormously, and the switch-over from oil-burning to coal for industrial and central-heating plants all add to the demands for coal.

135 **Coal Deposits**

The principal coal-producing district is around Petroşani, while the main deposits are as follows:—

Type	*Location*	*Calorific Value*
Anthracite ..	Schela in Gorj district	7,300
Hardcoal* ..	Reşiţa and Anina-Steierdorf	6/7,000
Brown coal and lignite	Jiu valley	6,500
	Comăneşti basin ..	5,200/5,600
	Ialomiţa valley ..	5,000
	Dâmboviţa valley ..	5,000
	Bacău district ..	5,000

* Some is suitable for coking

B. Tables

1. Coal Production

316 During recent years coal production has been increased in spite of a slight setback in 1940, when with the transfer of N. Transylvania to Hungary a small proportion of the working mines were lost. Further efforts are being made to increase production so that fuel-oil consumption may be reduced. To this end the conversion of central-heating installations, industrial oil-burning plant and oil-fired locomotives to coal burning has been ordered.

CHAPTER III

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3. Coke Imports and Production

	Imports	*Production**
	in '000 tons	
1936	30	78
1937	49	78
1938	63	86
1939	55	88
1940	54	86
1941	n.a.	90

* Including gas coke.

Of the total coke available annually—140,000 tons—100,000 tons were consumed by blast-furnaces and iron-works, the remaining 40,000 by other industries.

II. ELECTRIC POWER

A. General

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Being an agricultural country, Rumania, like the other countries of South Eastern Europe, is not extensively developed from the electrical point of view. The most important high-tension transmission lines are located in the neighbourhood of the Prahova oilfields and of Bucarest, but though these two areas are interconnected by means of lines operating at 120 and 60 kV, there is no national grid. There are a few other high or medium-tension lines which mostly connect power stations owned by industrial concerns. The majority of generating stations giving a public supply are quite isolated from each other.

1. Sources of Power

Rumania's potential water-power resources are high. It is estimated that 24,000 million kWh could be obtained annually from the economically

A. INTRODUCTION

135 By comparison with Greece or Yugoslavia Rumania has but poor deposits of minerals, with the exception of gold, as a producer of which, before the loss of Transylvania, she ranked second in Europe to Sweden.

316 Iron-ore output is inadequate to meet the requirements of the steel industry. Bauxite output is on a very small scale, though steps are being taken to increase this and to create an aluminium industry. Production of lead and zinc, though sufficient pre-war to cover requirements, was centred in territory now ceded to Hungary, so that the country has become dependent on imports. Silver and copper production, the latter never other than on a small scale, have also suffered through territorial losses. Attempts have been made during the last few years to develop output of chrome and manganese—manganese for production of ferro-manganese for the iron and steel industry, and chrome, deposits of which appear not to have been worked before 1941, for export to Italy.

135 Deposits of mica and molybdenum have both been recently discovered in small quantities in the Mehedinți district, and the Germans are particularly interested in production of the former.

B. IRON AND STEEL

327 Full use of the Rumanian iron and steel industry is severely hampered by inadequate supplies of metallurgical coke and of iron ore, both of which have to be imported. Shortage of the former particularly has affected the industry since the outbreak of war, because, due to an insufficient supply of metallurgical coke in German Europe as a whole, Rumania has been unable to import the requisite quantities to maintain output of her blast-furnaces. Rumanian plants, however, are new and the steelworks are all open-hearth or electric, which means that they are able to produce the qualities most useful for armaments.

1. Iron Ore

316 Shortage of iron ore is the fundamental weakness of the Rumanian iron and steel industry. Though various other concessions have been granted, but not yet in any way developed, only three mines have been regularly exploited, as follows:—

(a) The Ghelari deposits of limonite (47 per cent. to 54 per cent. iron) owned by the State and exploited by the Hunedoara Works.

(b) The Teliuc deposits of limonite (48 per cent. to 52 per cent. iron) and of siderite (28 to 35 per cent iron), owned and exploited by Titan Nadrag Calan.

(c) The almost exhausted Ocna de Fier deposits of poor quality limonite owned by Reșița.

316 439 Rumania has always had to import ore, chiefly from Yugoslavia, and recently from the Russian mines of Krivoi Rog as well. The following table shows Rumanian output and imports of iron ore.

Year	*Output*	*Imports*
	'000 tons	
1936	107	81
1937	127	90
1938	137	114
1939	143	90
1940	151	52
1941	106	n.a.

2. Pig-Iron Production

Rumania had nine blast-furnaces, as under :—

Company	*No. of Furnaces*	*Annual Capacity '000 tons*
Reşiţa	2	120
Hunedoara	4	90
Titan Nadrag Calan ..	1	25
Vlahiţa*	2	4
Total	9	239

*In Hungarian territory as a result of the Vienna Award.

The full operation of these furnaces is rendered impossible by lack of metallurgical coke. Only Reşiţa possesses coke ovens, and its production is no more than 80,000 tons a year—insufficient for its own needs. The blast-furnaces of Titan Nadrag Calan and of Vlahiţa are charcoal-burning, but charcoal has now become as rare as coke. These difficulties helped to keep pre-war pig-iron production far beneath capacity, as the following table illustrates :—

Year	*'000 tons*
1936	96
1937	116
1938	107
1939	115

3. Steel Production

Rumania's annual steel capacity is about 500,000 tons of ingots and castings. The principal producers are as follows :—

Company	*Annual Capacity '000 tons*
Reşiţa	210
Hunedoara State Works	200
Titan Nadrag Calan ..	100
Malaxa	65
Others	25
Total	500

All this capacity is open-hearth or electric and therefore requires large supplies of scrap (100 per cent. scrap can be used for electric blast furnaces, and for open-hearth anything between 30 and 70 per cent. scrap). As Rumania is predominantly an agricultural country, native scrap production is small, usually amounting only to about 150,000 tons per annum. Thus scrap had to be imported, as follows :—

Year	*'000 tons*
1936	37
1937	24
1938	74
1939	43
1940	6

Imports almost stopped on the outbreak of war and the situation became serious, but has to a certain extent been retrieved by the collection of battlefield scrap from Bessarabia and Transnistria, with the result that production of crude steel in 1942 should have been about 350,000 ton-

CHAPTER IV

327 compared with the following annual pre-war figures:

Year	'000 tons
1936	225
1937	241
1938	326
1939	385

4. Iron and Steel Consumption

The limited native iron and steel production which was never sufficient to keep the consuming industries fully supplied, became an increasing impediment with the rapid development of these industries during the last few years. Iron and steel products had therefore to be imported at the rate of 2/300,000 tons a year. The outbreak of war in Europe, and consequent restriction of supplies meant a falling off of imports, so that an acute shortage developed. During 1942, however, the situation improved somewhat in that Germany was reported to have sent a total of 130,000 tons of iron and steel products to Rumania.

5. German Penetration

327 A small degree of penetration into the Ru-
439 manian iron and steel industry has been achieved
473 by the Hermann Göring Werke which, after the partition of Czechoslovakia, acquired Czech interests in Reşiţa amounting to 6 per cent., which were later increased to 20 per cent.

In 1941 a company with 50 per cent. German and the remainder Rumanian capital, was formed to take over the management of Reşiţa and its associated companies. The Malaxa Works later also came under the organisation of this company.

C. LEAD AND ZINC

1. General

328 In pre-war years Rumania was practically
439 self-sufficient in lead but not in zinc, since she possessed no zinc-smelting facilities. Her production of zinc concentrates was exported, mainly to Poland, part of the metal content being reimported after smelting. Belgium and Poland were her chief suppliers of metallic zinc.

2. Mines and Plant

316 The mining of lead and zinc constituted only a small industry in Rumania. Part of the production, almost 50 per cent. in the case of lead, was obtained incidentally to the working of gold and silver ores. The principal producers were the State-owned mines Baia Sprie, Capnic, Văratec, Valea Roşie, Dealul Crucii, and the Herja mine owned by Phœnix S.A.; all are situated in the Baia Mare district in North Transylvania. The Herja ores averaged approximately 8 per cent. lead and 14 per cent. zinc, whilst ores from the other mines averaged only 4 per cent. lead and 10 per cent. zinc.

135 There are other deposits in the Transylvanian Erzgebirge, where galena and blende are associated with gold occurrences, in the Hunedoara, Banat, and Severin districts, and at Cârlibaba in the Bucovina.

328 Rumania possessed two lead smelters for the treatment of her production of concentrates: the Phœnix plant at Lucaci, with a capacity for about 5,000 tons of crude lead and 3,000 tons of refined lead, and a plant at Feriza belonging to Uzinele Metallurgica din Firiza de Jos. There

[22a]

328 was no zinc-smelting capacity until 1941, when the "Sonemin" concern (Societatea Nationala de Exploatări Miniere si Industriale S.A.R.) erected a plant at Copşa Mica with a capacity for 6,000 tons of crude zinc annually. The smelter has three retorts fired by natural gas, treating concentrates first roasted at the Phœnix works.

3. Pre-War Production and Trade

Ore production increased over the years 1934-1938, statistics available are conflicting, but it is certain that 1938 production in terms of lead content was not less than 7,000 tons. Smelter production also increased from 4,000 tons to about 7,000 tons, and averaged about 5,000 tons over the period. Exports and imports of lead were very small.

Ore production in terms of zinc content varied between approximately 4,000 tons and 8,000 tons. The concentrates were all exported, chiefly to Poland. Metallic zinc was imported almost entirely from Belgium and Poland.

The small output of lead and zinc was of little importance other than to Rumania herself.

4. War-time Development

[728] [439] As practically the whole of the Rumanian lead-zinc industry passed to Hungary when she acquired the Baia Mare district under the Vienna Award, Rumania became largely dependent on imports for the satisfaction of her lead and zinc requirements. However, she retained the Transylvanian Erzgebirge and other areas containing lead-zinc deposits, some of which she is now endeavouring to exploit. For instance, it was reported in December 1942 that deposits in the Banat, near Agadici, and in the Hunedoara district, were being developed. The Copşa Mica zinc smelter has remained in Rumanian hands.

D. MICA

316 135 The Germans are taking considerable interest in the mica deposits discovered in the Mehedinti district, though little is believed to be of high quality. The present annual rate of production is estimated to be about 150 tons.

E. BAUXITE

135 Rumania possessed reserves of bauxite situated in the Bihor Massif and estimated by German experts in 1939 at some 40 million tons. The main deposits are located in the Poiana, Crisul Repede and Jad Valleys, and in the Galbina valley south-east of Beiuş. Small deposits exist around Remetea and Bratca, in the district around Petroasa and near Turda.

31 Despite the size of her ore reserves, Rumania's production of bauxite has never been important, largely because of its unsuitability for the Bayer process, which is mostly operated in European alumina plants. Pre-war ouput never exceeded 10,000 tons annually, and was mostly consumed at home in the manufacture of cement and refractory bricks.

Mining operations were carried on before the war by three companies:

Soc. Bauxita S.A.R., a subsidiary of the Swiss Aluminium Industrie A.G. Chippis, which owned mines at Dobreşti and produced small quantities of bauxite for the Rumanian cement industry.

[22b]

316 (b) *Alumina S.A.R.*, a subsidiary of the German-controlled Bauxit-Trust A.G. of Zurich, which mined bauxite principally at Bratca in the Jad valley, and also owned concessions at Remetea and Pietroasa.

(c) *Aur S.A.R.*, a subsidiary of the Rumanian Mica Group, owning bauxite properties in the Sohodol region near the railway from Abrud to Turda. It supplied bauxite for the manufacture of cement and at the outbreak of war had reserved stocks for a projected alumina and aluminium plant.

The Dobreşti mines of the Bauxita S.A.R., which are within the present Rumanian frontiers, are producing at the rate of 10,000 tons annually, most of which is delivered to Germany.

F. ALUMINIUM

328 Rumania possessed no aluminium industry before the war although from time to time plans for an alumina-aluminium works were discussed. A few thousand tons of aluminium, mostly in the form of semi-manufactured or finished products, were imported annually, Germany being the principal source of supply. [439]

Aur S.A.R. have been experimenting in the production of alumina in a small pilot plant near Dicio Sân Martin, using the Seailles process which is claimed to be successful in producing alumina from low-grade bauxites of the type mostly found in Rumania.

This company is planning an aluminium reduction works of 20,000 tons capacity with an alumina plant of 60,000 tons. I.G. Farbenindustrie and the Mica group are interested, and the intention is to supply 20,000 tons of alumina annually to Germany. Up to June 1943 these projects had apparently not progressed beyond the experimental stage.

Small tonnages of aluminium, mostly in the form of semi-manufactures, are being imported from Germany, principally for the Rumanian aircraft industry.

G. CHROME

316 Rumania has reserve of chrome ore estimated at 2 million tons, located at Ogradina and Plavişeviţa on the Danube near Orşova. These deposits were not worked before 1941, and the output for 1942 is estimated at 5,000 tons. The ore is low grade, the highest chrome content being 40 per cent. Cr_2O_3. Germany is believed to be receiving the greater part of present output. [135]

H. MANGANESE

The pre-war annual output of manganese averaged 40,000 tons (40 per cent. Mn.), and the probable maximum output that could be obtained is 60,000 tons. The ore is located in the Eastern and Southern Carpathians with reserves estimated at 10 million tons, while the principal mines are near Jacobeni. About 30/35,000 tons of manganese ore is available for export, and is now mainly supplied to Italy and Germany, the remainder being used locally in the making of ferro-manganese. The Nitrogen company at Dicio sân Martin are reported to have extended their plant to produce ferro-manganese for supply to Reşiţa iron and steel works, and to Titan Nadrag Calan.

[23a]

A. GENERAL ENGINEERING

1. General

392 The general engineering industries of Rumania are comparatively small, though to meet the increased demand for engineering products development has been appreciable during the last decade.

[439] Rumania is most dependent on imports for her supplies of better class types of engineering equipment, such as machine tools, and whilst receiving technical assistance from Germany, has during 1942 and 1943 been purchasing engineering equipment in increasingly large quantities from Sweden.

391 The rougher classes of engineering products, such as nails, screws, rivets, chains and wire are produced in Rumania and there are a few firms, such as Acta S.A.R., and Industria de Optica

Română S.A.R., both in Bucarest, which make precision mechanical instruments; and "Flexodo" Prima Fabrica Română de garnituri pentru frane S.A., also in Bucarest, which specialises in brakes, couplings and transmission equipment. Small tools are made by a few firms, but the quality is indifferent.

The largest individual firms in Rumania concerned with general engineering production are Reşiţa, Malaxa, Lemaitre, Vulcan and Fraţii Schiel, all of whom undertake diverse production including locomotive and wagon manufacture and structural engineering and boiler construction.

Rumanian firms, such as Uzinele Metalurgice Ploeşti and Concordia S.A.R. of Ploeşti, produce certain types of oil-well machinery and equipment, but the bulk of requirements, particularly of the more specialised types, have to be imported. Before the war the U.S.A. were the principal suppliers, but since the war Rumania has become dependent on Germany for this type of machinery, and in view of the importance of oil to Germany, her requirements probably receive a high priority.

2. Agricultural Machinery

Rumanian agricultural methods are backward, and the degree of mechanisation is low, caused by lack of purchasing power of the peasants and the high percentage of small holdings, which make the use of modern equipment impracticable. For this reason the production of agricultural machinery has not been very highly developed, though there has been some expansion since 1927—production of implements has trebled between 1927 and 1937. Production of agricultural machines, however, declined by about 60 per cent. during the same period. Between

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Between 1935 and 1937 the average annual internal sale of agricultural implements amounted to some 6,000 tons, of which two-thirds were home produced and the remainder imported. The average annual internal sale of agricultural machines during this period was 3,300 tons, of which only a fifth were home produced. Germany was the main supplier of agricultural machinery before the war, and since the outbreak of war, has continued to be so.

[439] Agricultural tractors in particular have been imported in increased quantities and it is believed that during the period 1940–1942, inclusive, some 4,000 units were imported, from Germany, as well as a few hundred from Italy.

Agricultural implements are produced in small quantities by about 15 general engineering firms, while the chief firms producing agricultural machinery are as follows :—

[25d]

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397 Germany. It is, however, believed that tank wagons have been built to German order by the Astra Works at Braşov, and that narrow-gauge rolling-stock for the State Forestry Department has been under construction at Braşov.

4. Motor Vehicles

398 439 In spite of the gradual industrialisation which was taking place in Rumania in the early 1930's, by 1935 there was no motor-vehicle industry, so that the country was entirely dependent on imports. The Government, therefore, to combat the steady decline in the number of motor vehicles which had been taking place since 1930, issued a decree in 1935, offering special facilities to foreign manufacturers who would establish assembly plants. At the same time the establishment of a domestic manufacturing industry was contemplated, a plan which does not appear to have been realised.

398 Following this decree the whole of the motor-car assembly industry, which was then built up, was
439 dominated by American manufacturers, the three main assembly plants all in Bucarest, being :—

Ford Româna S.A.R., for assembly of Ford motor vehicles of all types.

Leonida S.A., for assembly of Chevrolet cars, and representatives for General Motors.

Sural S.A.R., for assembly of Chrysler cars and others such as Dodge, De Soto and Plymouth and Fargo trucks.

From 1938 onwards several firms were established by German companies, including :—

Româno-Germana S.A.R., for repairs and servicing of vehicles.

Skoda Industriala Româna S.A.R., for the import and sale of Skoda products, and for assembly and repair work.

Tatra Româna S.A.R., representatives of the Ringhoffer-Tatra-Werke A.G., Prague.

Demag Româna S.A., agents for Demag motors of Duisburg.

With the establishment of these and other affiliated German firms the automobile assembly industry gradually passed into German hands, a process which was completed in 1940 when the Americans withdrew from the country.

398 As a result of the establishment of all these firms, the number of motor vehicles increased, and in 1938 there were 34,000 vehicles of all descriptions in the country. The estimated total number of lorries in civilian use on July 1st, 1943, was 9,000, of which 6,500 with up to 3 tons capacity and the remainder over 3 tons.

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439 Germany has, during the war period, continued to export motor vehicles to Rumania, and the industry has continued to be engaged on repair and assembly work, parts being supplied by Germany.

5. Electrical Industry

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439 The electrical industry is small and mainly concerned with the manufacture of accumulators and cables, the former probably being largely a matter of assembly from parts supplied by the German A.F.A. company (Accumulatoren Fabrik A.G., of Berlin and Hagen). Imports in 1937, about 60 per cent. of which came from Germany and Austria, amounted to 20·9 million R.M. (716·87 million lei) which compared with a domestic output in that year of 11 million R.M. (417·3 million lei).

393 The following are the main factories engaged on production of electrical equipment :—

[26c]

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Present requirements for the Armed Forces for such articles as wireless, field-telephones, etc., and electrical equipment for the oil companies are imported from Germany, as are civilian requirements, though imports for the latter by no means cover the demand. Sweden and Switzerland both supply small quantities of electrical goods of various types.

B. ARMAMENTS

1. General Development

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Rumanian armament works were for many years badly organised and equipped. In 1936 the Government made the first serious attempt to organise the industry, and selected some eight engineering works for conversion to extensive war production, particularly of shells. Much of this and of subsequent expansion of the industry was carried out under the supervision of foreign concerns, notably Schneider, Skoda and the Ceskoslovenska Zbrojovka, who were not only responsible for equipping the Rumanian works, but also for providing technical and trained personnel.

By 1939 and 1940 a number of new factories came into production, and others either increased their output or adapted their organisation to war production. Despite this expansion, however, the present-day (1943) level of production cannot fulfil the whole of the needs of the Armed Forces, and Rumania has been forced to import war material from Germany, France, Switzerland and elsewhere.

The industry suffers from a lack of certain essential raw materials and of facilities for the production of machine tools, power units and other important engineering components, for which the Rumanians are largely dependent on their already hard-pressed Allies.

[26e]

399 In the middle of 1942, under German influence, the Rumanian Government proceeded to rationalise the industry, and a Board was set up to control the country's most important armaments and aircraft factories. Under this scheme German managers or supervisors went into the aircraft factories and their main activity has since been the repair of damaged aircraft, though some new production continues. For instance, in August 1942 it was reported that an order for 200 I.A.R. fighter aircraft with 1,200 h.p. engines had been placed on behalf of the Rumanian Air Force.

[439] Rumania is still buying Italian (Savoia Marchetti) aircraft, German gliders, and various components from Germany and Switzerland.

Apart from the aircraft factories listed below, facilities for complete overhauls of airframes and engines exist at the Aviation Arsenal in Bucarest, and it has been reported that a former jute factory in Bucarest is now utilised for repair work, and that the Asam-Pipera works, also in Bucarest, are repairing engines.

Information regarding the number of workers engaged in the aircraft industry is too fragmentary to enable any estimate of their total number to be made.

[655] The main producing companies are as follows:—

(*a*) *I.A.R.* (*Industria Aeronautică Română*), the principal Rumanian aircraft company, is State-owned. It has a factory at Braşov (87 miles N.N.E. of Bucarest) for the manufacture of aircraft and aero-engines, and also produces high-precision tools of a very good quality. The factory occupies a site of some 125 acres, adjoining an airfield about 3 or 4 miles north-east of the central station of Braşov. It is a well-equipped plant and possessed considerable stocks of tools and raw materials at the beginning of the war.

The aircraft, produced before the war at a rate of about 8 monthly, consisted mainly of Potez 25 and I.A.R. 15 and 16 single-seater fighters and an I.A.R. type of four-seater commercial aircraft. The engine department produced under licence, at the rate of 25 monthly, an adaptation of the Gnôme-et-Rhône 14N. A licence was also held for Jumo 211 engines, but none of these appear to have been built.

[439] Since the war this factory has been under German control, exercised through a branch of the Hermann Göring Works. The main types of aircraft produced are I.A.R. 80 and 101 single-engined fighters and the Potez 63. Engine production appears to range between 20 and 30 a month, though the German management is trying to double that figure. Airframe output recently appears to have been about 20 monthly. In addition, a good deal of repair work is done for Germany.

The company depends largely upon imported components. It has a propeller department which, about the end of 1941, was transferred to a former paper factory in Azuga; its output, however, does not appear to have been equal to requirements, for in July, 1942, propellers were being imported from Germany.

(*b*) *S.E.T.* (*Societatea pentru Exploatări Tehnice Industria Națională Aeronautica S.A.R.*,) known up till September 1938 as I.N.A., i.e., *Industria Națională Aeronautică S.A.R.* This company was founded in 1937, sponsored by

[27 b]

A. TEXTILES AND TEXTILE FIBRES

248 In the years preceding the war, Rumania had been making efforts, with some success, to reduce the degree of her previous dependence on imports of textile fibres. The cotton crop of fair average quality, though still far short of the expanded [236] mill capacity, was gradually increasing, while indigenous wool supplies—though chiefly of coarse quality—were in the main enough for peasant clothing. Home-grown crops of hemp and flax were sufficient for internal needs, while jute, coir and hard hemps were imported to complete the requirements of industrial fibres.

248 439 The cessation of imports and loss of territory to her neighbours have entirely changed the supply picture, and combined with demands by Germany for imports have greatly reduced the textile "standard of living."

1. Cotton

With the development of her processing industry, Rumania had increased raw cotton imports and was successfully encouraging domestic cotton production. By 1938, imports at some 21,000 tons were about five times larger than those of 1932, and the domestic crop yield, less than 20 tons in 1932, had risen to about 600 tons. The principal sources of raw cotton were Egypt, the U.S.A., and Great Britain.

With the outbreak of war, Rumanian imports generally were curtailed, the combined total of raw cotton and cotton materials being 14,700 tons in 1940, and 13,800 tons in 1941. Thereafter, Rumania was dependent on such supplies as she could obtain by barter, lower grade cotton from Turkey and Italy and cotton and staple fibre union cloth from Italy.

248 Since 1938 the Rumanian cotton crop has continued to increase, though it is still very short of normal requirements, while the cession of some 8,000 ha. (20,000 acres) of cotton land to Bulgaria in 1940, and unfavourable weather conditions, tended to restrict the cotton-growing programme.

Prior to the territorial changes of 1940, cotton was grown close to the Danube at Craiova, and especially in the Southern Dobruja. With the cession of most of this land to Bulgaria, cotton is now mostly grown on the north bank of the Danube, at Banloc near Timişoara in the Banat and in the districts of Teleorman, Vlasca and Ialomiţa. The crop in 1939 was 2,200 tons from less than 10,000 ha. (24,000 acres) and in 1942 was estimated at 5,000 tons from about 20,000 ha. (50,000 acres). A further increase in area has been planned, but the harvest, particularly in the north, is largely dependent upon climatic conditions. The type of cotton now produced is considered superior to Indian, and similar in quality to American.

288 The chief mill centres are at Arad, Bucarest, Cluj, Iaşi, Lugoj and Timişoara; of these, Cluj is the only one to have been affected by the transfer of territory. [655] Cotton supplies are distributed under the direction of the Department of Industry and Trade by "Romacotin," which also has a monopoly of purchase from producers at prices fixed by the General Price Commissariat. Cotton may be sold only to these Government agencies to whom it has to be delivered by

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248 sack and rope requirements; and a hemp and flax office has been established with a capital of 20 million lei and a credit of 500 million to distribute seed and manure, and to rent and finance retting and scutching plants. This office, which is the only purchaser of these fibres, is to make no profits, and prices are to be fixed. Fifteen up-to-date plants are to be erected in 1943 in the hemp-growing areas.

[439] Although Rumania normally had little or no export balance, Germany in 1942 demanded 15,000 tons of the 20,000 tons available. How much of this was actually delivered is not known, but the shortage of hemp and other fibres has led to amazing competition between the various industries for the remaining supplies, and a hemp, rope and sack factory is to be built at Chişinău [288] in Bessarabia, where the shortage of these goods is particularly acute.

4. Flax

Flax appears to be the only crop grown on a smaller area in 1943 than in 1941 and 1942, when 20,000 ha. (49,400 acres) were planted, as compared with 15,000 ha. (37,000 acres) in 1938 and 12,000 ha. (29,600 acres) in 1939. Preference, apparently, is to be given to hemp. The pre-war output was about 10,000 tons, but no reliable figures are available since 1939. Normally, there was no appreciable export of flax, but as with other fibres, the Germans appear to have been persistent in their demands. The Rumanian company, Fuiorul Cotonese, in which German capital participates, is to build flax-retting tanks at Cereteni (in the district of Dolj) and Zimnicea (in the district of Teleorman).

5. Rayon and Staple Fibre

288 There were two plants erected before the war, the "Apretura" at Popeşti-Leordeni and the Viscosa Românească at Lupeni, the combined daily capacity of which was 12 tons of rayon and 6 tons of staple fibre. (Approximately 4,200 tons rayon and 2,100 tons of staple fibre annually.) There has been but little expansion since, and the present annual production is estimated at 4,400 tons rayon and 2,600 tons staple fibre. Imports [439] from Italy have been 450 tons in 1940, and 2,500 in 1941. Germany promised substantial quantities, but it is doubtful whether they fully materialised. Applications for permission to erect a new pulp mill have been made by both German and Italian interests, but it seems that the Germans objected to Snia Viscosa's being granted a concession and obtained it themselves later.

6. Silk

231 Although Rumania is within the orbit of the silk belt, output is small, reaching a maximum of 20 tons of cocoons in pre-war years, and 35 tons of reeled silk were imported, principally from Italy. Silkworm breeding is located in the Banat, and in common with the drive for increased silk production in German Europe, Rumania has made efforts to increase silkworm breeding.

288 In 1937 about 5,000 workers were engaged in silk weaving (probably including artificial silk); this number was increased to 7,336 in 1941. It is reported that the cocoon crop is now delivered to the Air and Marine Ministries, presumably for making cartridge bags, etc.

7. Other Fibres

248 Raw jute imports averaged about 5,500 tons
439 annually before the war, and in addition there were smaller imports of jute cloth and bags.

248 439 Paper, and paper mixed with hemp, are now used to substitute jute.

Although a comparatively large producer of soft hemp, Rumania normally needed to import about 2,300 tons of other hemps for special purposes, and the sources of these imports have been severed since her entry into the war.

Comparatively negligible amounts of coir were also imported in peacetime.

288 291 434 **8. Clothes Rationing**

Unlike almost all other Enemy and Occupied countries, Rumania possesses no official clothes-ration card, although purchases are restricted to a specific number of garments per year. Since 1940 the Government, anxious to avoid the necessity for a card rationing system, has adopted various means in an endeavour to overcome the shortage of textiles, particularly of cotton and wool.

Standardisation of fabrics and fixed prices were introduced in 1940, but clothing of standardised material was frequently unobtainable since the price did not leave the retailer a profit.

Army demands soon called for a great increase in clothing production, thereby reducing the stocks and greatly raising prices of civilian clothing—those for overcoats rose by 300 per cent. and for knitted goods by 400 per cent.—and the difficulty of importing raw materials soon reacted on the industry, so that by 1941 the textile shortage, particularly of bed linen, had become serious. Later in the same year, the Ministry of Supply blocked the sale of all semi-manufactured or manufactured blankets.

Early in 1942 the Government requested the public to purchase only necessities, ordering the industry at the same time to use cotton allocations for the manufacture of standardised bed linen and clothing only. Later in 1942 it was decreed that the annual allotment of garments per head of the population was two suits or frocks, one overcoat, three shirts, 12 handkerchiefs, three pairs of socks or stockings, one sheet, three towels. The sale of standard cloth was restricted to three metres per person per annum. For this arrangement, however, clothing coupons were not issued and purchasers were requested to produce their identity cards and a signed certificate of need if the purchase exceeded 300 lei.

291 435 Non-standard articles are still obtainable, but their exorbitant prices make them accessible to a limited section of the public only. Retailers are known to have refused the sale of standard cloth even when displayed, in order to secure, if possible, the higher profit margin for non-standard goods.

[565] The members of the public most severely affected by clothing shortage and high prices are industrial workers and the poorer urban population. Though the large firms are supposed by law to supply their employees with clothing (as well as food) at cheap prices, it is thought that this is not being widely practised.

Prices of all materials for men's garments have risen to such an extent that people cannot afford to buy even such goods as are available in the shops.

248 656 To counteract shortage of clothing fibres, peasants are being encouraged by the Government to increase cultivation of flax and hemp for production of the rough cloth suitable for peasant clothing.

[30b]

137 Banat and in west Transylvania; and of these 15 per cent. are not easily accessible and are unremunerative to exploit on account of heavy capital expenditure necessary to build suitable roads and railways. The forests of the plains were of minor importance, especially since they consisted almost entirely of young trees yielding firewood only.

Beech was the principal forest tree, except in the plains, where it gave way to various species of oak. The eastern Carpathians constituted the only predominantly coniferous regions.

[423] The following table shows how the forests were owned and managed; column 1 shows the area in million Hectares, column 2 the equivalent in square miles:—

	I	II	% of Total
State owned	1.9	7.3	30
Owned by communes, churches, etc.	2.0	7.7	30
Owned by companies and private persons. . ..	2.5	9.6	40

About 70 per cent. of the forests were treated as "high forests" (i.e., allowed to grow naturally) and the remainder were under varying forms of "coppice management" (i.e., allowed to grow from roots after cutting, thus producing small timber).

2. Annual Increment and Domestic Consumption

313 439 Chiefly as a result of Rumania's Agrarian Reform policy in 1924 and 1925 of clear-cutting huge forest areas to provide peasants with additional agricultural land, very large volumes of timber became available for the export market, with the result that a wrong impression was created abroad that Rumania was a country with a large export surplus of timber.

[31d]

313 [439]

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From this it appears that there was a surplus for export of only about 248,000 cubic metres of timber, but about 3.3 million cubic metres of firewood.

The figures for firewood growth and consumption include branches and other unmerchantable parts of the tree (*Reisholz*). Growth of these was about 3.6 million cubic metres, and although it is not known what quantity of these were included in consumption, this is not thought to be large, as such wood is mostly left in the forests. It was considered, therefore, that the greater part of the firewood surplus consisted of branches, etc., not sufficiently merchantable to be regarded as available for export.

If *Reisholz* is excluded, net merchantable growth was about 15 million cubic metres consisting of about 9 million cubic metres firewood and 6 million cubic metres timber :—

	'000 *cubic metres*
Conifers ..	3,230
Broadleaf* ..	11,787
	15,017

* Of which (in '000 cubic metres) beech 5,641 ; oak 2,933 ; and sundry 3,212.

3. Annual Cut

As far as can be ascertained, average annual felling, in millions of solid cubic metres, over a number of years was as follows :—

	Annual cut	*Of which Conifers*
1920 21 ..	16.3	3.3
1922 26 ..	20.7	5.8
1927 30 ..	19.3	5.6
1931 37 ..	17.2	4.4

This is equivalent to an average annual cut over the period 1920/1937 of 18.4 million cubic metres, an excess of 3.4 million cubic metres over net growth, or an exploitation of 120 per cent. per annum. The result of this over-exploitation was that by 1936 a large area, estimated to be as much as 3 million ha., was considered unsuitable for further production.

The conifers particularly were overcut, to the extent of an average of 50 per cent. of their growth. This was principally due to the heavy export demand for these, but can be explained in part by the fact that much of the Rumanian beech yields poor quality timber suitable only for firewood. This is shown more clearly in the details of cut by species for 1930 (the only available figures of such cutting) reproduced in Table 1 on page 35. No details of cut by trade categories are known for any year, but after firewood the largest individual item was sawlogs.

4. Timber Industry

After 1920, with the help of foreign capital, the sawmill industry was considerably over-expanded compared with the normal yield of the forests, and by 1928 there were estimated to be 570 mills in operation, which consumed in that year more than 12 million cubic metres of logs. Subsequently, as a result of world economic conditions and increasing competition on the European markets from the U.S.S.R., sawmilling activity, and with it forest exploitation, declined to some extent; but the industry was nevertheless still over-developed up to the outbreak of war.

In 1938 there were 713 timber concerns employing 43,326 people, of which 478 were sawmills with 37,693 employees; the balance consisted mostly of joinery works, furniture factories, and

[Cf. table, cat. 313, p. 31 f--Analyst]
[i.e., p. 33 a --Analyst] [32 a]

313 cooperage and boxmaking plants. The distribution of these is shown in Table II although separation of the sawmills from the other industries is not possible. There were also three match factories, which covered internal requirements, and four wood-distillation plants, two of which, situated at Margina and Resita, appeared to be relatively large concerns.

5. Exports

313 Rumania's timber exports between 1935 and
439 1938 averaged 1·8 million cubic metres per annum, which was 5 per cent. of total European exports, and gave her the leading place among south-east European countries. Almost 90 per cent. of total exports were conifers, whilst, as the following table shows, sawn goods made up by far the greater part :—

Categories	*Average annual exports 1935-38 (in '000 cubic metres)*	
Sawn goods	1,280	71
Firewood	222	12
Hewn goods	113	6
Sawlogs	71	4
Boxboard, etc	37	2
Pitwood	34	2
Pulpwood	26	1½
Sleepers	21	1½
Total	1,801	100

Exports were made to many countries, including South America, but the most important customers were Hungary, Germany, U.K., Syria, Palestine, Egypt and Greece. Trade with Germany in the immediate years prior to the war was tending to increase.

6. Employment

313 It was estimated by a qualified expert that the
[+64] forests gave direct or indirect employment to 750,000 people (about 10 per cent. of the total labour force) in forest work, transport of forest produce and in the timber industry and trade. At least 250,000 were engaged in actual forestry work, but this number probably included part-time and seasonal workers.

7. Transport

[505] Water transport played but a small part in
[497] the carriage of timber, carrying only about 700,000 cubic metres per annum. By far the greater reliance was placed on transport by railways, and some 10 million cubic metres were carried by this service each year.

II. PRESENT SITUATION

Under war conditions Rumania has been faced with increasing difficulties for her supply of timber, and as most of the quantities now made available are required for home consumption, she has very little significance as an exporter.

The forest area lost by the cession of part of Transylvania is estimated to be about 1·4 million ha., and as this area accounted for 25 per cent. of pre-war production its loss is of serious consequence. It is estimated that under existing circumstances the maximum annual cut that is possible, if the present forest area is to be maintained, is 12 million cubic metres.

About 210 timber-processing concerns, of which 176 were sawmills, were also lost with Northern Transylvania, but in view of the over-expansion of the timber industry these losses are probably of less serious consequence.

313 Present fellings are not known, but a considerable shortage of forest workers and draught animals, coupled with poor transport conditions generally, are making it impossible to fell and to distribute sufficient timber to meet all home demands. These have been considerably increased by the need for timber for military purposes both in the country and at the front, and for reconstruction work in the war-damaged areas of Bessarabia, Bucovina and Transnistria. The result is a heavy and at times serious shortage of supplies.

[439] Exports, which had already fallen to about 562,000 cubic metres in 1940, further declined after the loss of Transylvania and were only some 210,000 cubic metres in 1941, but of these about 180,000 cubic metres were old accumulated stocks of sawn goods which were sold to Germany and the U.S.S.R. at the beginning of that year. No information has yet been received concerning 1942 exports, but the increasing difficulties of production make it unlikely that these were of any importance, and probably did not exceed 50,000 cubic metres.

[656] The forests are now placed under Government control and many decrees have been published regulating and defining the quantities and dimensions of trees that may be felled. Maximum prices have been fixed for all classes of timber, and a strict rationing of firewood introduced, whilst in 1942 an export embargo was placed on several categories of timber, principally soft woods.

After the cession of Northern Transylvania, German forestry experts visited the country to advise on proper forestry methods, and although there is no real evidence of what was decided, there are indications that the country is now more forestry-minded, and that more regard is being paid to reafforestation and other necessary work. These are, however, long-term policies and can have very little immediate effect or improvement on the country's present difficult situation.

TABLES

1. Details of Cut and Ownership, 1930

[423]

Timber	*State*	*Communes*	*Private*	*Total*
	(*in '000 solid cubic metres*)			
Conifers ..	570	2,450	2,850	5,870
Beech ..	1,080	300	480	1,860
Oak, etc. ..	350	390	520	1,260
Firewood ..	2,820	2,130	6,930	11,880
Total ..	4,820	5,270	10,780	20,870

2. Distribution of Timber Industry, 1938

	Units	*Personnel*
Total timber industry ..	713	43,326
of which :		
Sawmills	478	37,693
Distribution of total timber industry by administrative regions :—		
Olt	18	1,756
Bucegi	159	7,177
Marea	3	38
Dunarea de Jos ..	29	932
Nistru	3	109
Prut	67	6,222
Suceava	110	6,555
Mureş	155	9,196
Someş	83	7,163
Timiş	86	4,178

C. PAPER AND PULP

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With a normal consumption of only 3·3 kg. 7¼ lb.) of paper and board per head of the population, compared with 37 kg. (81·4 lb.) in Great Britain, Rumania is one of the smallest consumers in Europe. The country's requirements in ordinary grades of paper and board are well covered by about thirteen paper mills, some of which also manufacture both chemical and mechanical wood pulp.

Newsprint requirements are met by home production.

Pre-war (1936) production of chemical pulp was 37,000 tons and of mechanical wood pulp 9,000 tons, while the output of paper in the same year was 48,000 tons, and of cardboard 10,000 tons.

[439] Small imports of sulphate pulp normally came from Sweden, and of mechanical wood pulp from Austria.

In 1940 the production of paper rose to 105,150 tons, of which little more than half was sold internally and about 90 per cent. came from mills in the Rumanian Paper Cartel.

By the early part of 1942 a critical situation had arisen due to scarcity of fuel and raw materials.

The principal pulp and paper mills having four or five machines each and an annual capacity each of 24-30,000 tons of paper are as follows:—

(*a*) Fabrica de Celuloză Zărnești S.A., Brașov.
(*b*) "Letea" Fabrica de Hârtie Bacău.
(*c*) Fabrica de Hârtie "Bușteni" (C. & S. Schiel) at Bușteni.

The remaining mills, about ten in number, are much smaller, and three of them, with a combined capacity of 6-7,000 tons per annum, have come under Hungarian ownership following the Vienna Award.

Zărnești Cellulose Mill is of primary importance as the main source of chemical wood pulp for domestic consumption and export, and it is believed that this factory is now making special bleached cellulose for the manufacture of explosives. Elaborate machinery imported from Germany was installed with fair promptitude.

The utilisation of reeds from the Danube delta has not yet (July 1943) begun, although much publicity has been given to this project in the local and German press, but a concession has been granted to a German-Rumanian Society, "Delta A.G." The Zărnești and Bușteni Paper Mills are participating and investigations are under way. A similar concession asked for by the Snia Viscosa concern in Italy is said to have been refused.

[434] In 1942 consumption of paper in the first half of the year amounted to over 90 per cent. of production, but in the second half-year the Cabinet imposed fresh restrictions on consumption in order to remedy the increasing shortage.

[439] There is a considerable trade with the Italian Government in bitumenised cardboard for walling and roofing military hutments, and it is believed that a part of these are imported from Scandinavia (and exported after bitumenising) to Italy and the U.S.S.R. for the Italian Expeditionary Forces. It is also likely that since the bombing raids on Italy extra demands have been made for repair purposes.

[33 b]

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A. THE CHEMICAL INDUSTRY

Though the chemical industry of Rumania ranks lowest among the chief industries on the basis of production value, it is better and more comprehensively developed than in the other south-east European countries. Production is chiefly confined to heavy chemicals manufactured largely from indigenous raw materials. Most of the factories are situated in Valachia, Transylvania, and around Timişoara in the Banat.

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1. Acids and Alkalis

Rumania produced annually 45,000 metric tons of sulphuric acid, which was sufficient to cover the pre-war requirements of the country, which were mostly for the refining of mineral oil. The manufacture was in the hands of some six firms, of which the chief producer was the **Mărăşeşti** S.A.R., with plants at **Mărăşeşti**, Valea **Călugăreasca** and **Braşov**. Three of the smaller plants producing sulphuric acid with a total annual capacity of 18,000 tons, representing 35 per cent. of the total, were acquired by Hungary. The necessary sulphur was obtained from Rumanian pyrites mines located at Baia Mare and Baia Sprie in N. Transylvania, acquired by Hungary in 1940. Since that date supplies have been derived from Fundul Moldovei, Zam, Sacaramb and Altan Tepe, though not in sufficient quantities to cover requirements. Shortage of sulphuric acid has been partly eased by imports from Italy.

The alkali production is normally sufficient to yield a surplus for export. Rock salt, of which there is an important domestic production, forms the basis of the alkali industry.

Salt Production

	metric tons
1939	374,000
1940	323,000
1941*	267,000

* Reduced 1941 production is due to loss of salt mines to Hungary at Ocna Sugatag, Ocna Dejului and elsewhere.

385 Soda ash is made solely by the Solvay Company at Ocna-Mureşului, where the annual capacity of the plant is estimated at 50,000 metric tons. Caustic soda is made by the Solvay Company and by S. A. Nitrogen at Dicio Sân Martin. Production of alkali in 1939 and 1942 (estimated) was :—

	1939	1942
Soda ash ..	38,000	40,000
Caustic soda ..	11,800	15,000

Requirements of hydrochloric acid were about 3,000 to 3,500 metric tons a year, and were completely met by home production. Production of sodium sulphate, a by-product in the manufacture of hydrochloric acid, amounted to 2,650 metric tons in 1939.

The most important sulphate made in Rumania before the war was that of copper, production of which averaged 5,700 metric tons between 1933 and 1936, increasing to 12,400 tons in 1937. The chief producers were the **Mărăşeşti** and the Phœnix chemical works (the latter in ceded territory).

●[439] There is at present an acute shortage of copper sulphate, the loss of which as a fungicide is particularly felt. Germany is reported to have supplied small quantities in return for exports of copper scrap.

389 met by the Axis. The chief products made in the country are mining explosives and nitro-cellulose powder.

B. THE RUBBER INDUSTRY

383 Taking Axis Europe as a whole the Rumanian rubber industry is of little importance. There is manufacturing capacity for motor tyres located at Floresti and at a much smaller plant at Braşov. The total number of workers employed in normal years was about 4–5,000, a large number of these being engaged on footwear manufacture, which was the chief product of the industry.

1. Raw Materials

Rumanian requirements of raw rubber had been increasing steadily in pre-war years until in 1938 they amounted to over 2,000 tons all of which were imported from British Malaya and the Netherlands Indies. It is probable that several firms produced reclaimed rubber for use in their own factories. Some of the scrap for this purpose would be of domestic origin. Import figures in metric tons were —

[439]

	1936	1937	1938
Crude rubber	1,273	1,835	2,000
Reclaim	181	214	33
Waste and scrap	305	581	500

Rumania had a small production of soft carbon black of the type suitable for miscellaneous uses, but there was no production of the hard carbon black necessary for tyre manufacture. This and other requirements of rubber chemicals would normally be obtained from the U.S.A., the U.K. and Germany. Supplies of sulphur were imported from Italy and Germany.

2. Principal Factories

The Rumania rubber industry comprises a large number of concerns producing footwear and general rubber goods, in addition to two factories concerned mainly with tyre manufacture. The larger tyre plant is owned by Banloc A.G., a company founded in 1937 with a capital of 200 million lei and supplied with technical assistance by Goodrich U.S.A. The plant, located at Floreşti, was only completed in 1939. Its estimated raw rubber requirements were 1,500 tons per annum, and it has the capacity to produce 6,000 motor and truck tyres monthly, sufficient to cover 75 per cent. of normal Rumanian requirements. This capacity included some plant for making aircraft tyres. The other plant which produces tyres is on a much smaller scale, and is owned by Fabrica de Cauciuc at Braşov, with a normal capacity of 10–20 truck tyres daily.

According to the latest information, both these tyre plants were still in production at the beginning of 1943, when Banloc were reported to be producing between 100 and 200 motor tyres daily with technical assistance from Continental, Hanover, while the Braşov plant was producing 12 to 15 lorry tyres daily with technical assistance from Semperit, Vienna.

3. Imports

383 439 The chief item of imports in pre-war years was motor tyres, amounting to between 800 and 900 tons per annum. Since at that time Rumania possessed virtually no capacity for producing any of her own requirements, this figure approximately represents normal domestic needs. Footwear requirements, on the other hand, were normally almost covered by the large and expanding domestic output, so that imports were unimportant.

[35a]

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[439]

The figures of imports in 1938 in metric tons were as follows —

Motor tyres	807
Motor tubes	60
Rubber footwear	221
Soft rubber unvulcanised	32
Rubber solution	57
Miscellaneous	173

4. Synthetic Rubber

It is planned to erect a plant with a capacity of 3,000 tons per annum in co-operation with German interest and using natural gas as the raw material. There is a second plan by independent interests to erect another plant at Ploești using natural gas or oil as a starting point. Both these projects, however, are as yet in their initial stages and Rumania is, at present, entirely dependent on Germany for supplies of synthetic rubber.

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5. Cultivation of Rubber-bearing Plants

Rumania has been experimenting with the planting of *Kok Saghys* or Russian dandelion. During 1942 an area of 180 hectares (450 acres) was planted, which it is estimated will eventually yield between 20 and 30 tons of rubber. It is planned to increase the planted area in 1943, but it will be some time before any results of these measures will help substantially to alleviate the Rumanian supply position.

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6. Present Position (July, 1943)

Although Rumania has sufficient manufacturing capacity to supply most of her essential needs, she lacks supplies of raw materials. The industry is dependent upon Germany for supplies of synthetic rubber and some of her essential requirements of manufactured goods for her armed forces, such as aircraft tyres and some heavy truck tyres, are also being supplied by Germany.

C. HIDES, SKINS AND LEATHER

(i.) Pre-War Period

1. General

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Rumania's plentiful supply of livestock places her in a comparatively favourable position for hides, skins and leather and the pre-war slaughterings were approximately as follows —

	'000 Head
Cattle	487
Calves	500
Horses	100
Buffaloes	32
Sheep	1,374
Goats	100
Pigs	768

Of the leather producable from the above animals cattle, horse and buffalo are the most important, being used to a large extent in the manufacture of sole leather, which is the backbone of the industry.

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Rumania is not entirely self-supporting, although home-production enables her to restrict imports to a minimum. Imports and exports in 1937 were as follows —

	Imports	*Exports*
	tons	
Hides of cattle (including calf and horse	2,630	Nil.
Other hides and skins (including sheep and pig skins)	341	558
Leather (including waste)	62	410

[35b]

CHAPTER VII

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[439] The imported hides are in all probability largely heavy hides needed for sole leather. Those designated as "other hides and skins" are not important in tonnage, and exports are almost certainly all sheep and pig. The exports of leather are not very important, as they consist almost entirely of leather waste.

Total supplies of leather, available from internal slaughterings of cattle, calves, horses and buffaloes together with net imports, would be about 12,000 tons, of which 10,11,000 tons are derived from local hides and skins.

Part of the sheepskins were dewoolled and turned into leather, the wool being sold separately but a considerable number of skins was used as fleece-lined jackets by the peasants. The total quantity of leather from the locally slaughtered sheep would, however, not exceed 750/1,000 tons.

Unlike Western countries, the pigs in Rumania are flayed, and the skins tanned, so that the pigskin industry is certainly of material value, although not of major importance, compared with Rumania's total leather production.

2. Manufactures

295 Rumania's leather trade made rapid strides in pre-war years and, as the bulk of the leather was made into footwear, an important increase in this production was noticeable. Although no official statistics are available, it is estimated that Rumania produced 4/5,000,000 pairs of leather shoes in 1936 and, in addition, considerable quantities of peasants' footwear were manufactured in country districts.

The industry at that time consisted of about 20 machine shoe factories, six of which were owned and controlled by tanneries, mainly centred in Cluj, Timişoara, Bucarest and Oradea. In addition, numerous small shops existed throughout the country in which shoes were made by hand. With the loss of Northern Transylvania the machine-shoe centres of Cluj and Oradea went to Hungary.

3. Tanning Materials

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[439] Rumania has in the past relied on other countries for practically all her tanning materials and extracts. She used to import about 8,000 tons of different extracts, about 50 per cent. of which were re-exported from the U.K., probably quebracho and wattle extract. Yugoslavia supplied her with about 2,000 tons of extract, presumably oak and chestnut.

(ii.) War-time Developments

1. General

Though Rumania has suffered during the war from a leather shortage, partly on account of reduced internal production, but more especially because of the increased requirements for the Armed Forces, this shortage has not been so severe as in most European countries.

It has been reported that the leather production in 1940 was 9,200 tons, but that the supply of raw hides fell from 19,000 tons pre-war to 11,000 tons in 1941. This is a severe drop, even assuming that the 19,000 tons included imported hides. A substantial decline in the available supplies of leather has, however, certainly taken place owing to the curtailment of imports, to clandestine slaughterings, and to exports of live cattle to the Axis.

An indication of the extent of supplies allocated for Army needs was contained in an official announcement that 68 per cent. of all untanned

282 cattle hides collected in September, October and November, 1941, were for this purpose. The remaining 32 per cent., plus the horsehides, pigskins and goatskins, could be used for civilian purposes. The result was that very soon insufficient sole leather was available for civilians, and repairs to footwear became difficult.

282 656 At present 80 per cent. of the cattle hides weighing over 16 kilos (35 lb.), and 20 per cent. of the hides weighing less than 16 kilos, are reserved for the Army. This leaves the civilians very short of sole leather, normally manufactured from heavy hides.

At the end of 1941, the Ministry of Supply ordered the registration of all leather stocks, and thereafter leather could not be sold without a permit. The entire purchasing and control of raw hides and skins and also the distribution of leather was placed in the hands of the "ORAP" (*Oficiul Român de Aprovizionare și Distribuire a Produselor de Pielărie*).

In the autumn of 1941 private dealings in sheep and lambskins were forbidden, the Army Supply Minister having sole right of disposal. Owing to the comparatively important domestic output such a measure should not have been necessary, but was due to the Rumanian, and probably German, demands for warm clothing on the Russian front. Evidence received in 1942 shows that 80 per cent. of the skins are now reserved for the Army.

In July, 1942, leather transmission-belting, etc., was brought under control and made subject to certain restrictions.

295 434 Civilian rationing of footwear was introduced early in 1942 and new shoes could be sold only against permits issued to persons declaring possession of only one other pair of serviceable shoes. Repair cards were also issued. Requisition cards for new shoes are limited to one a year, and repair cards to one every four months. Children under 14 years of age can obtain two requisition cards yearly for new footwear.

The issue of permits does not, however, guarantee footwear supplies, and only about 50 per cent. of repair or purchase demands appear to be met.

The above regulations have been slightly modified from time to time, but remain intrinsically the same. The production of footwear of substitute materials, such as wooden soles, soles of artificial-leather, leather waste, buna, etc., has gradually increased.

295 435 Despite the various government regulations the footwear Black Market flourished, and while the average pre-war price for a pair of men's shoes was 800 lei, in October, 1941, the official prices were fixed at about 1,500 lei for a standard pair of men's shoes and about 1,200 lei for a standard pair of women's shoes. In March, 1942, however, the Black Market price for men's shoes was 7/8,000 lei a pair, and this has now gradually risen to 10/12,000 lei. Complete soleing and heeling of men's footwear costs 1,250 lei officially, and women's 1,000 lei. The official price of soleing leather is 530 lei per kilo, whereas the Black Market price is 34,000 lei.

2. Tanning Materials

282 439 Before the war Rumania never made use of her own barks for tanning, as it was more economical to import extracts from overseas. During the war she has made attempts to employ her oak, chestnut, spruce and pine barks for tanning materials, but

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without much success, and [illegible] to her former practice of importing [illegible]

In February 1942 it was reported [illegible] imports from Italy, Turkey and Croatia. Rumania had an eight months' supply in hand.

Under the 1942-43 Italo-Rumanian [illegible] Italy is providing her with 1,750 tons of chestnut extract, 1,000 tons of sumach and 738 tons of other materials. Turkey also agreed to supply [illegible] in 1942 with 1,000 tons of valex and 2,500 tons of valonea.

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D. BUILDING MATERIALS AND CEMENT

The building materials industry in Rumania, on a small scale and not highly mechanised, employing a total of 16,000 workers in 1937, with the value of production in that year amounting to 1·6 milliard lei, about 2½ per cent. of total industrial production. In the decade before the war cement, which is the most important branch of this industry, had a steadily increased output, reaching in 1939 a total of 531,000 tons, with an 800,000 ton capacity. Small quantities had to be imported.

The most important cement firms are at [illegible] Vodă, Turda, Dudeşti, and Fieni. Since the war, due to limited building activity, consumption of cement has decreased, and was reported to have been 314,000 tons for the first ten months of 1942, the bulk of which was used for military requirements.

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After the recapture of Northern Bucovina and Bessarabia in mid-1941, a considerable amount of repair work had to be undertaken [illegible] war destruction; but, at the beginning of 1942, due to raw material and labour shortages, further reconstruction in these two provinces was forbidden. Later, in February 1943, [illegible]

339 [656] came into force forbidding construction throughout the country for the duration of the war of private buildings requiring either iron, steel girders, sheet-iron or other sheet-metal roofing.

In 1942 production of bricks and tiles was reported to have been sufficient to meet the reduced requirements. During the war period there have been considerable exports of asphalt and tarred board for roofing, the latter mainly to Italy.

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E. GLASS

323 The glass industry employed 6,000 workers in 1937 in 19 glass factories and 20 glassware factories, the most important of which were the Vitrometan Fabrica de Sticlarie S.A. of Mediaş and the Fabrica de Sticlarie Turda S.A. of Turda, both producing sheet-glass and hollow-ware.

Production did not cover the requirements of specialised types, which were imported from Germany and Czechoslovakia. During the war period window-pane production has been adequate for requirements and small quantities have been manufactured for Germany; while under the 1942 Turco-Rumanian Trade Agreement Rumania agreed to supply both window-panes and glassware.

F. CERAMICS

The ceramic industry employed 1,600 workers in 1937 in 33 factories, and the value of production was 112 million lei. Most of the raw materials for this industry are found in the country, and there has been no difficulty in supplying these during the war period. Apart from the mechanised industry, ceramics are produced in normal times on a comparatively large scale by the peasants. The principal factories are the Nitrogen S.A. in Tărnăveni, the Crinul S.A. in Timişoara and the Uzinele Ceramice S.A. in Ploeşti.

[376]

497 and for passenger travel are severely limited. However, unless there is severe destruction in the 722 later stages of the war, in the long run the Rumanians are bound to benefit from the capital investment in railways, and from the new construction and improvements which have been carried out to meet Axis needs. These improvements though planned long ago, could never have been carried out with the limited financial and technical resources previously available, and could not have been executed so quickly but for German assistance.

B. ROADS

491 Rumania's road system was, by Western European standards, very poorly developed before the war, there being only one International motor road which formed the continuation of the route from Hungary via Oradea Mare—Cluj—Sibiu—Braşov—Bucarest—Giurgiu and a branch line Bucarest—Olenița. Apart from this one major road, the system consists of untarred roads, many of which are in a poor state of repair.

The total length of the road system was reported early in 1943 to be 82,098 km. (51,070 miles), with only 12 per cent. in good state of repair, 22 per cent. being mediocre and the remainder in bad condition. Ownership of the total network is divided as follows :—

State roads	..	11,465 km. (7,118 miles)
Provincial roads	..	26,181 km. (16,272 miles)
Communal roads	..	44,452 km. (27,620 miles)

in 1936 there were some 34,000 cars registered.

The development of the road system has long been the dream of Rumanian propagandists, particularly as a stimulus to tourist traffic, but before the war no large-scale development could be embarked upon because of the lack of available capital.

499 Since the war, work has been started on an ambitious programme of road development, the objects of which are to improve communications between urban systems and to link the system with the International road network.

An Italo-Rumanian road company has started work on the Rumanian sector of one of the future trans-European roads, Trieste—Beograd—Turnu Severin—Bucarest—Constanța, while under a five-year plan, with an expenditure of 75 md. lei, some 5,000 km. (3,100 miles) of road are to be modernised with the help of German and Italian contractors.

C. SHIPPING

1. Introduction

505 A high percentage of Rumania's foreign trade
439 is water-borne (55 per cent. in 1937), as not only is she situated on the Black Sea, but the Danube traverses the full west to east length of the country, forming an important traffic route and link with Central Europe.

The following table shows comparative tonnages for sea and river traffic in 1937 and 1938 :—

	1937	1938
	'000 *metric tons*	
Sea :		
Imports	622	540
Exports	6,918	5,222
River		
Imports	1,890	1,568
Exports	3,161	2,688

As a result of the cutting-off of overseas markets since 1940 an increasing share of the country's

[42a]

505 439 trade is carried on the Danube to European markets, Germany in particular, and, with the exception of an exceedingly limited traffic with Turkey, and a few intermittent shipments of oil to enemy ports in the Aegean Sea, Rumania's foreign sea-borne trade has been brought virtually to a standstill.

In addition to traffic in the Black Sea with U.S.S.R., Bulgarian and Turkish ports, Rumania in pre-war days had important commercial relations with most European and other countries overseas, the trade routes being via the Dardanelles, Mediterranean, Suez Canal and the Straits of Gibraltar.

2. Mercantile Marine

505 [652] All merchant-shipping activities are controlled by the Ministry of Air and Marine. Rumania's ocean-going mercantile marine in 1939 was constituted as follows :—

		G.R.T.
6	cargo and passenger motor vessels	27,061
16	cargo steamers	67,103
3	steam tankers	14,737
25	Total	108,901

[655] Of the 19 cargo steamers and tankers, 11 were oil-fired and 8 coal burners. Fourteen of these vessels were owned by the Rumanian State Maritime Service (*Serviciul Maritim Român*), the principal shipping company in Rumania, whilst the three tankers belonged to the Steaua Romana Petroleum Company of Bucarest. The remainder were privately owned.

[648] Consequent upon her entry into the war Rumania's mercantile marine came under Axis control and most of her vessels are trading for German and Italian account, partly in the Adriatic and Aegean, and partly in the Black Sea.

A statement of Rumania's estimated non-tanker merchant-shipping resources on the 30th April, 1943, follows :—

ESTIMATED RUMANIAN MERCANTILE MARINE RESOURCES (NON-TANKER) UNDER AXIS CONTROL IN THE MEDITERRANEAN AND BLACK SEA AT 30TH APRIL, 1943.

Tonnage Category	*No. of Vessels*	*Total G.R.T.*
100-499	3	578
500-999	—	—
1,000	2	2,798
2,000	2	4,286
3,000	3	10,170
4,000	—	—
5,000	2	11,395
6,000	3	20,220
Aggregate	15	50,147

[723] As to her tanker tonnage, two vessels aggregating 11,705 G.R.T. were seized and are now in Allied service, whilst the third, of 3,032 G.R.T., was sunk in December, 1941, in the Aegean Sea.

3. Ports

504 The chief ports for sea-going vessels are Constanta on the Black Sea and Brăila and Galați on the Danube, which both handle river shipping as well.

[42b]

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505 cleared without very considerable development. It is probable that not more than about 50 per cent. of the above capacity could be worked. Grain is loaded by land and floating elevators.

[502] The ports of Brăila and Galați are ice-bound during some winters, ice occurring to a sufficient extent to prevent navigation from the Black Sea between January and mid-March in about 3 years in 10.

D. INLAND WATERWAYS

I. General

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487 In 1937 navigable waterways totalled 2,846 km (1,766 miles) and were divided as follows:—

	Km	*Miles*
Danube	1,075	668
Danube tributaries	395	246
Dniester	740	460
Prut	419	255
Mureș	185	115
Bega Canal	35	22

The rivers Dniester, Prut and Mureș have not been adequately regulated for regular traffic, but are used for local traffic and for timber floating.

II. The Danube

1. Traffic

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439 The Danube, Rumania's main traffic artery, carried about 60 per cent. of all import tonnage and some 15 per cent. of all exports in the years immediately before the war. Traffic is of two distinct types, first the traffic in sea-going vessels with an average size of 2,000–2,500 tons proceeding as far as Galați and Brăila via the Sulina mouth, and second, on the river proper, on the Danube above Galați.

The sea-going traffic passing through the Sulina mouth in the years just before the war consisted of about 1·2—1·4 million tons a year of exports from Rumania or other riparian states. By far the most important items were grain and timber. About half the vessels entering the Danube from the sea appear to have been in ballast, the remainder bringing in some 300,000–500,000 tons of imports mainly for Rumania.

Inland-water traffic on the Rumanian section of the Danube in 1936 (the latest year for which information for all kinds of traffic is available) amounted to 3 million tons. 1·6 million tons consisted of upstream traffic from Rumania to other riparian states, 0·24 million tons of downstream traffic to Rumania, about 1 million tons of Rumanian internal traffic and about 0·2 million

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of transit traffic, mainly downstream, [illegible] with other riparian states was apportioned as follows —

	From Rumania	*To Rumania*
	'000 tons	
Germany	220	40
Austria	390	20
Czechoslovakia	440	30
Hungary	300	150
Yugoslavia	200	—
Bulgaria	80	3
	1,630	243

The composition of inland-water traffic has been fully analysed only at the Iron Gates, at the western end of the Danube's Rumanian course. In the traffic shown below, the upstream traffic consisted mainly of Rumanian exports, while the downstream traffic was made up of imports and transit traffic in approximately equal proportions.

Traffic in '000 metric tons at the Iron Gates —

	1938	1942
	Upstream	
Total	1,362·5	1,864
of which (main items only):		
Timber	20·1	11·6
Iron	21·1	13·4
Wheat	30·3	300·6
Barley	49·8	68
Maize	25·1	125·7
Petroleum and its products	787·7	1,046·2
Salt	30·8	31·7
	Downstream	
Total	489·3	771·2
of which (main items only):		
Iron	77·2	22·2
Timber	67·6	86·5
Wheat	74·4	363·0
Maize and oats	79·6	28·2

Little is known about traffic since Rumania finally joined the Axis in 1941. As a whole, it is below pre-war level as a result of a great decrease in the amount of grain coming forward. This has been partly, but certainly not entirely, counterbalanced by a slight increase in oil traffic, by the probable diversion of rail traffic to the Danube and by military traffic. The most important individual traffics at the present time are as follows —

(a) Oil shipments from Giurgiu (i) upstream to Italy (50-70,000 tons a month), to Germany (possibly 30-50,000 tons a month), and (ii) downstream to German forces in South Russia (quantity unknown, but may be substantial).

(b) Downstream supplies of (i) coal to Rumanian railways (part only of total supply), and of (ii) military equipment, stores, etc., to South Russia (quantities unknown).

(c) Upstream supplies of (i) some S. Russian products, including grain (perhaps 20,000 tons a month) and possibly iron and manganese ore (quantities unknown), as well as of (ii) some small quantities of Rumanian exports of agricultural products.

2. Navigation

The Iron Gate Sector of the Danube between Orşova and Turnu Severin, with its rapids and reefs causing violent currents, is particularly difficult for navigation, and the use of specially

A. GENERAL

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●439 Although primarily an agricultural country, since about 80 per cent. of her population is rural, Rumania has not been so dependent on the export of agricultural produce as a means of financing her imports as would be expected, oil and oil products having in the years immediately preceding the war accounted for as much as 40 per cent. of total exports.

From the following table it will be seen that the trade balance was consistently favourable from 1930 onwards :—

	Imports	*Exports*	*Balance*
	Million lei		
1929 ..	29,028	28,960	— 68
1930 ..	23,044	28,522	+ 5,478
1931 ..	15,755	22,197	+ 6,442
1932 ..	12,011	16,722	+ 4,710
1933 ..	11,742	14,171	+ 2,429
1934 ..	13,209	13,656	+ 447
1935 ..	10,848	16,756	+ 5,909
1936 ..	12,638	21,703	+ 9,066
1937 ..	20,285	31,568	+ 11,284
1938 ..	18,768	21,533	+ 2,765
1939 ..	22,890	26,809	+ 3,919
1940 ..	27,500	37,500	+ 10,000

This favourable trade balance was increased by the earnings of the marine and river fleets. Total earnings of the marine fleet were 110 million lei in

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1932, rising to 186 million in 1937 and 202 million in 1938, of which about two-thirds were derived from freightage. Total earnings of the river fleet were 74 million lei in 1932, 149 million in 1937 and 216 million in 1938. Pilotage through the Iron Gate rapids added another 47 million lei in 1938.

B. CHIEF IMPORTS AND THEIR SOURCES

Between 1921 and 1936 imports of the main deficiency commodities—textile fibres and their manufactures, iron and steel and manufactures thereof, machinery, other base metals and their manufactures, and vehicles, varied but little in their relationship to all imports, these five groups of commodities accounted for about 70 per cent. of the value of all imports.

By 1939, however, iron and steel had assumed chief importance, and these five classes now constituted 80 per cent. of all imports.

In the period 1937-9, when the trade of most of the world was declining, all these classes, with the exception of textiles, showed increased imports, an indication of the progressive industrialisation of the country.

The following table shows the major commodities imported in 1938 with their values, and a breakdown into main sub-classes with their leading sources, values and the shares of such trade for the most important countries :—

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Chief Commodities	Total value 1938 (Million lei)	Chief sources (value in million lei in brackets)
1. Iron and Steel	**4,060**	
Semi-manufactures	842	Germany (321); Hungary (150); Czechoslovakia (122); France (104); Belgium (80)
Tubes	524	Germany (163); Czechoslovakia (122); Hungary (120); France (62); U.K. (17); Belgium (17)
Tool steel	136	Czechoslovakia (86); Germany (47)
Scrap iron and steel	209	Holland (70); France (57); Belgium (30)
Ferro-alloys	51	Czechoslovakia (13); Germany (8); Poland (6); Yugoslavia (6)
Iron ore	34	Yugoslavia (34)
Manufactures	2,110	Czechoslovakia (668); Germany (605); U.K. (158); U.S.A. (80); Hungary (41); France (38); Sweden (32)
2. Textile Fibres and Manufactures	**3,731**	
Cotton yarn	1,184	Czechoslovakia (318); Germany (307); Italy (257); U.K. (213); France (60)
Raw cotton	897	Egypt (623); Turkey (148); U.K. (26); U.S.A. (26); Belgium (25)
Cotton piecegoods	240	Czechoslovakia (90); Germany (61); Italy (30); Switzerland (31); U.K. (16)
Wool yarn	393	Germany (257); Italy (73); Czechoslovakia (14); U.K. (6)
Wool, washed combed	340	France (149); U.K. (106); Belgium (73)
Wool, raw	23	Argentine (14); Australia (5); U.K. (3)
3. Machinery and Apparatus	**3,558**	
Industrial machinery	1,371	Germany (740); Czechoslovakia (242); U.S.A. (160); U.K. (111); Switzerland (40)
Machine tools	522	Germany (418); Belgium (36); Czechoslovakia (24); France (11); Switzerland (11)
Agricultural implements	242	Germany (123); Hungary (46); U.S.A. (40); Czechoslovakia (16)
Electro-technical apparatus	1,117	Germany (635); Belgium (113); U.K. (110); Hungary (73); France (50); Holland (35)
Engines, boilers, etc.	280	Germany (95); Switzerland (42); Hungary (36); U.S.A. (24); France (18)

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Chief Commodities	Total value 1938 (Million lei)	Chief sources (value in million lei in brackets)
4. Other Base Metals and Manufactures	**1,476**	
Copper, unwrought	264	Belgium (174); Yugoslavia (38); U.K. (23); U.S.A. (8)
Copper, scrap	41	U.K. (23); Belgium (13)
Copper manufactures	865	France (262); Belgium (205); Germany (126); U.K. (80)
Zinc, unwrought	53	Belgium (41); Poland (6)
Zinc, other	19	Germany (7); Belgium (3); Poland (3)
Tin, unwrought	48	U.K. (32); Belgium (5); France (5); U.S.A. (5)
Tin, other	9	U.K. (4); Germany (2)
Aluminium, unwrought	23	U.K. (8); Germany (8); France (3); Yugoslavia (2)
Aluminium, other	58	Germany (21); U.K. (13); Italy (9)
5. Vehicles	**1,456**	
Lorries	534	Germany (315); France (182)
Motor cars, private	297	U.S.A. (152); Germany (98); Belgium (30)
Motor car chassis	256	U.S.A. (125); Germany (59); Belgium (42); France (25)
Aircraft	142	Holland (40); U.S.A. (36); U.K. (27); Germany (26)
Motor car parts	94	U.S.A. (39); Germany (33); Belgium (9)
Bicycles	39	Germany (39)
6. Chemical Products	**620**	
Medicaments	269	Germany (182); France (38); Hungary (25); Switzerland (14)
For Textile Industry	34	Germany (22); Switzerland (11)
7. Fruit and Colonial Produce	**525**	
Citrus fruits	171	Palestine (90); Italy (46); Greece (20); Syria (15)
Olives	125	Greece (113); Turkey (12)
Coffee	84	Germany (27); U.K. (14); Denmark (13); Holland (12)
Cocoa	42	Denmark (37); Holland (2); U.K. (2)
Tea	22	U.K. (8); Holland (7); Denmark (2)
8. Rubber, Celluloid and other Vegetable Gums	**424**	
Rubber, raw	100	U.K. (67); Holland (15); Denmark (9)
Rubber manufactures	216	Germany (56); Italy (37); U.K. (28); U.S.A. (13)
Celluloid and manufactures	26	Germany (23)
Gums, etc.	54	Greece (26); France (8); U.K. (7)
9. Earth Stone and Manufactures	**380**	
Glass manufactures	99	Germany (74); Hungary (8); Czechoslovakia (5)
Pottery manufactures	93	Germany (57); Czechoslovakia (26); Hungary (6)
Refractory bricks	79	Germany (60); Czechoslovakia (18)
Coke	68	Germany (24); Poland (22); Czechoslovakia (22)
Coal	25	Turkey (10); Germany (7); U.K. (7)
Total of above classes	17,350 million lei, over 90 per cent. of *total imports* of 18,768 million lei.	

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16. Notes on Imports

1. *Iron and Steel and their Manufactures.*—In 1935 expenditure was merely 1·9 milliard lei, or 17 per cent. of all imports; by 1939, however, this proportion at 6·76 milliard lei had increased to 30 per cent. of all import trade. As a rule, Czechoslovakia and Germany each supplied about one-third of the total class; in 1939 France, Italy and Holland were of next importance as against the previous usual order of Hungary, France and U.K.

2. *Textile Fibres and Manufactures.*—Expenditure in this field declined heavily to 3·6 milliard lei in 1939 (21 per cent. of all imports) compared with 5·8 milliard lei in 1937 (29 per cent. of total import trade).

Raw materials constituted one-third of the whole

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class and yarns more than one-half. Of the raw materials, cotton accounted for about two-thirds and wool one-quarter, while of the yarns two-thirds were cotton and less than one-quarter was woollen.

The import of piecegoods was small by comparison with the rest of the class, reflecting the growing importance of the weaving industry to the country.

3. With a short interval from 1930 to 1932 values of imported *machinery* increased progressively up to 1939, when a record payment of 4·3 milliard lei was made. The proportion of such purchases to total imports had remained about 19 per cent. for many years. Normally industrial machinery constituted two-fifths of the whole

[48 c]

439 class, electro-technical apparatus one-third and machine-tools one-seventh.

Germany provided 60 per cent. and Czechoslovakia 8 per cent. up to 1939, when Germany's share increased to 66 per cent. and Czechoslovakia's fell to 5 per cent.

4. *Base Metals other than Iron and Steel*.—In 1934 a progressive demand began which reached 1·7 milliard lei in 1939: throughout the period between 7 per cent. and 8 per cent. of all imports were of this class.

Three-quarters of this trade was in copper in all forms. Belgium provided one-third, France one-fifth, U.K. one-eighth and Germany one-tenth.

5. *Vehicles*.—In 1937 imports were valued at ·9 milliard lei, four times higher than in 1933; in 1939 they were eight times as high at 1·8 milliard lei. The most spectacular increase was in heavy motor transport vehicles which leapt from ·08 milliard to ·90 milliard lei between 1937 and 1938.

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Normally the field had been shared by Germany with 40 per cent., U.S.A. 25 per cent. and France 17 per cent.; in 1919, however, Czechoslovakia and Germany each provided 33 per cent., U.S.A. 17 per cent. and France nearly 9 per cent.

C. CHIEF EXPORTS AND THEIR DESTINATIONS

From 1921 to 1927 cereals were by far the most important export, rising steadily from 4 milliard to 10 milliard lei. Only once in the following years i.e. in 1931, did cereal exports exceed in value those of petroleum and its products, which lately averaged over 40 per cent. of total exports.

In the early years after the last war timber ranked second among exports, but the development of the petroleum industry lowered it to third. The other classes in the following table have not changed in relative importance for many years.

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Chief Commodities	Total value 1938 (Millions lei)	Chief destinations (value in millions lei in brackets)
1. Materials for Heat, Light, etc.	**9,313**	
Benzine	4,401	Germany (1,055); France (506); U.K. (555); Czechoslovakia (350); Spain (255); Switzerland (210); Belgium (152); Hungary (30); Greece (125); Italy (124); Tunis (122)
Kerosene	1,748	Germany (209); U.K. (204); Egypt (197); Italy (112); Hungary (104); Czechoslovakia (92)
Gas oil	1,377	U.K. (205); Italy (201); Greece (180); Germany (173); Egypt (143); Turkey (36); Yugoslavia (28)
Mazout	1,030	Italy (334); Germany (106); Hungary (53); Egypt (52); Spain (40); Greece (37)
Crude petroleum	535	Czechoslovakia (278); Italy (118); Hungary (95); France (54); Yugoslavia (47)
2. Cereals and Pulses	**5,258**	
Wheat	3,337	Germany (1,160); Czechoslovakia (503); U.K. (420); Greece (422); Belgium (215); Switzerland (196); France (88); Spain (89); Holland (78); Gibraltar (75)
Maize	827	U.K. (106); Greece (166); Germany (122); Czechoslovakia (88); Holland (57); Belgium (46)
Barley	638	Germany (530); Greece (44); Switzerland (24)
Pulses	287	Germany (55); France (56); Greece (26); Belgium (25); Italy (22); U.K. (22)
3. Timber	**2,465**	
Constructional timber	1,940	Germany (432); Hungary (429); Greece (240); Egypt (234); Palestine (218); Syria (158); Turkey (64); U.K. (55); U.S.A. (40); Italy (37); Cyprus (28); Czechoslovakia (20)
Boxes, cases, etc.	162	Palestine (152); Cyprus (7)
Firewood	125	Hungary (88); Germany (23); Italy (12)
4. Livestock	**1,221**	
Swine	795	Germany (470); Czechoslovakia (100); Greece (108); Italy (5)
Cattle (all kinds)	208	Greece (112); Palestine (11); Italy (4); Germany (27)
Poultry	70	Germany (38); Palestine (27); Italy (4)
Horses	40	Germany (27); Czechoslovakia (12)
5. Seeds	**1,096**	
Clover, vetch, etc.	148	Germany (92); Belgium (17); Denmark (11)
Sunflower	216	Italy (83); Czechoslovakia (40); Holland (32); Poland (49)
Colza, rape	169	Italy (102); Czechoslovakia (42); U.K. (18); Germany (5)
Pumpkin	75	Italy (20); Germany (43); Poland (11)
Other oilseeds	463	Germany (402); France (22); Czechoslovakia (18)

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Chief Commodities	*Total value 1938 (Million lei)*	*Chief destinations (value in million lei in brackets)*
6. Edible Animal Products	**638**	
Eggs	338	U.K. (317); Germany (19)
Fresh meat, mainly pork	49	Germany (40); Italy (5)
Meat, prepared, tinned, etc.	68	U.K. (29); U.S.A. (17); Czechoslovakia (13)
Poultry/game, dead	151	Germany (66); Switzerland (57); U.K. (15)
Lard	28	Czechoslovakia (23); Germany (4)
7. Fruit and Colonial Produce	**370**	
Nuts	217	Germany (123); U.K. (29); Poland (24); Czechoslovakia (17)
Pip fruits	90	Germany (56); Czechoslovakia (31)
Plums, all kinds	30	Germany (11); Poland (11)
8. Vegetables, Flowers, etc.	**361**	Denmark (148); Czechoslovakia (44); Germany (36); U.K. (24); Hungary (22)
9. Hides, Skins, etc.	**203**	
Sheep and goat, all qualities	176	U.S.A. (135); Poland (34)
Total of above classes	20,927 million lei, over 95 per cent. of *total exports* of 21,532 million lei	

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10. Notes

1. *Materials for Heat, Light, etc.*—Though only the most important consumers are shown in the table, nearly all European countries were purchasers.

2. *Cereals and Pulses.*—The figures for one year are but small guide to an export dependent upon harvests in buyers' and sellers' countries, but there never has been any doubt as to Rumania's importance as a European granary. Wheat was normally about one-half and maize one-sixth of the class, and Germany usually bought about one-third of the whole export, which lately ranged between 25 per cent. and 33 per cent. of all exports.

3. *Timber.*—This lost much of its importance between 1925 and 1933, when exports fell to 1 milliard lei. The recovery was gradual, though steady. Exports accounted in recent years for between 9 per cent. and 11 per cent. of total exports.

4. *Livestock* increased in value from 1.3 milliard lei in 1937 to 1.8 milliard in 1939, representing a rise from 4.2 per cent. to 6.7 per cent. of all exports. Pigs consistently composed half the class and cattle one quarter.

5. *Seeds* at 1.1. milliard lei in 1938 maintained the class at 5 per cent. of total export trade. Oilseeds represented three-quarters of the class, and of these Germany bought more than half.

6. *Edible Animal Products* increased 50 per cent. in value from 1938 to 1939, reaching a total of 958 million lei, of which nearly one-half was eggs and one-quarter fresh meat (chiefly pork). While the sales of these two commodities were advancing year by year, those of poultry and lard steadily declined.

In 1939 Germany displaced U.K. as the best buyer.

D. WARTIME CHANGES

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Inclusion in the blockade area and consequent severance from former overseas markets has made Rumania increasingly dependent on Germany, both as a market for her exports and as a supplier of essential raw materials and machinery.

Rumania's export surplus has been very considerably reduced during the war period. The

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chief pre-war exports have all suffered. Agricultural produce particularly has been affected, as a result of poor harvests. The export of wheat and maize, which averaged a total of 1.32 million tons between 1935 and 1938, did not amount to 100,000 tons from the 1942 harvest. Timber exports, which ranked third before the war, have dwindled to less than 5 per cent. of the quantities exported in 1937 and 1938.

Oil exports now take first place, amounting to 63 per cent. of the 1940 total by value, though, due to reduced production, the total tonnage available is below that of the peak years immediately preceding the war.

Germany's participation in Rumania's foreign trade has increased from 23 per cent. in 1937 to 46 per cent. in 1940 and during 1941 and 1942 had increased to approximately 70 per cent. of both imports and exports. German exports, however, by no means balance her imports, so that there is an ever mounting clearing balance in Rumania's favour, which was reported to amount to 30 milliard lei in December, 1942, and which causes considerable anxiety in Rumanian financial circles. However, in June 1942 an agreement was signed between the two countries by which war essential trade has to be maintained irrespective of the state of the clearing.

The chief products imported from Germany are agricultural and other machinery, iron and steel semi-manufactured and finished products, and chemicals.

Oil has become Rumania's principal export to Germany, representing in 1940 about 58 per cent. of the total value.

Italy takes second place in Rumania's foreign trade, accounting in 1941 for 11.8 per cent. of Rumanian exports and 16.1 per cent. of imports. Trade is regulated by agreements renewed annually and petroleum products constitute the principal Rumanian export, other commodities being agricultural products and livestock, both in small quantities. Italian exports in return include textiles, sulphur, fruit and military supplies.

Trade with other European countries has been on a very reduced scale. Agreements were concluded with Slovakia, Portugal, Sweden, Switzerland, Turkey, Bulgaria, Croatia, Denmark and Finland, the exchanges following obvious lines.

[50 c]

RUMANIA:— IMPORTS & EXPORTS BY COMMODITIES

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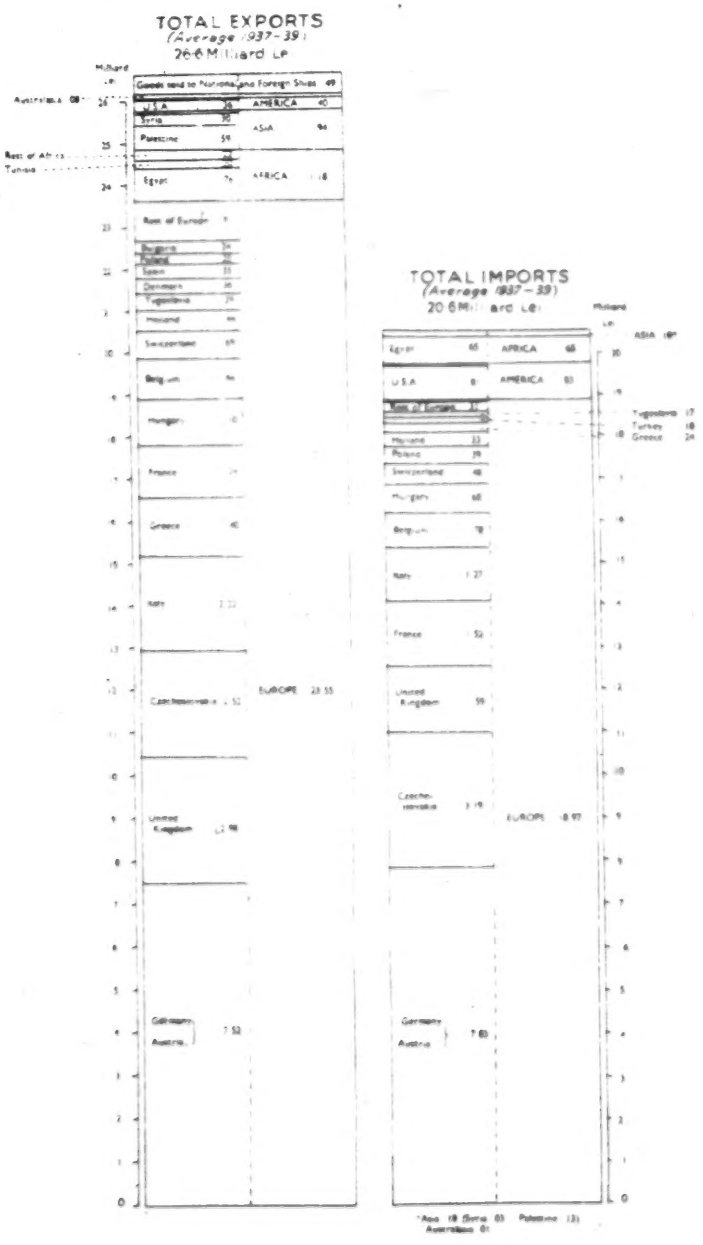

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RUMANIA — IMPORTS & EXPORTS BY COUNTRIES.

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